Government of Karnataka

Bangalore Development Authority

Tender No.:

Tender Document

("Two-Cover" System, through e-Procurement only)

For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System at BDA

The Commissioner,
Bangalore Development Authority
Head Office - BDA,
Kumara Park West, T.Chowdaiah Road,
Bengaluru - 560020.
Ph. No. 080-23442273, E-mail: _____

BANGALORE DEVELOPMENT AUTHORITY
5th Main Road, Kumara Park West, T. Chowdaiah Road,
Guttahalli, Bangalore, Karnataka-560 020
Ph. No. +91 94831 66622 **E-mail:** edphead@bdakarnataka.in

Tender for the "For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System at BDA"

Tender Number:	Refer E-Procurement Portal
Date Floating Tender on e-Procurement Portal	17-03-2026 at 17.30 Hrs.
Date and Time of pre-bid meeting	Refer E-Procurement Portal
Last date and Time to submit bid through e-procurement portal.	Refer E-Procurement Portal
Date and time for opening of Technical bids one Procurement Portal	Refer E-Procurement Portal
Date and time for opening of Commercial bids one Procurement Portal	Will be intimated to the shortlisted/ technically qualified Bidders.
Place of opening of bids	The Head of EDP Cell, Head Office - BDA, Kumara Park West, T.Chowdaiah Road, Bengaluru - 560020

Tender for the "For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System at BDA"

(Two-Cover" System, through e-Procurement only)

Section I: Invitation for Bids (IFB)

Tender No.: **Dated: 17-03-2026**

The Bangalore Development Authority (BDA) invites the tender through an E-procurement platform for eligible bidders for the for Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System. The Item requirements are listed in Table 1.

Annexure. A

1. 98" Interactive Display		
S No	**Parameter**	**Specifications**
1	Display Panel Size	**98 Inches or higher**
2	Light Source	DLED backlight
3	Resolution	3840 × 2160 (4K UHD)
4	Refresh Rate	60Hz
5	Aspect Ratio	16:9 or better
6	Display Colour	1.07 Billion colors (10-bit) or higher
7	Surface	4mm Anti-glare tempered glass
8	Brightness	Upto 450 cd/m² or better
9	Haze	25%
10	Contrast Ratio	1200:1 or better
11	Viewing Angle	178° (H/V)
12	Backlight Life	≥ 50,000 hours or better
13	Touch Technology	IR Touch
14	Touch Points	40 touch points on Android & Windows or better
15	Touch Response	≤ 5 ms or less
16	Touch Accuracy	± 2 mm or less
17	CPU	Octa-Core A55 or better
18	GPU	Quad-Core MaliG52 or better
19	RAM + ROM	8GB RAM + 128GB Storage or better
20	Operating System	Android 14.0
21	Wi-Fi	802.11 a/b/g/n/ac (2.4GHz/5GHz)
22	Bluetooth	5.0 or latest
23	Speakers	2 × 20 W or better
24	Interfaces	5× USB 3.0/USB 2.0, 1× Type-C, 1x TF Card Slot, 3x HDMI IN (1 ARC), 1x HDMI OUT, 1x Touch USB, 1x RS232, 1x Line Out, 1x Coax, 1x RJ45 IN, 1x RJ45 OUT, 1x 3.5mm Jack, 1x VGA IN, 1x VGA Audio IN, 1x DP IN

25	Built in VC Software	The solution should support up to 100 participants in an online session, allow transmission of up to 4 camera feeds simultaneously, and provide 4K video, chat, data collaboration, and whiteboard features. It should also support local recording of sessions, have valid Web Security / Vulnerability & Penetration Testing Certificates, and the Interactive Display with VC software must be from the same OEM
26	Additional Features	The system should include a scheduling option with VC link sharing, support multiple cameras (minimum 4) with voice-activated switching layout, and offer advanced bandwidth optimization. It must support webinars with Q&A via chat along with YouTube live integration, and provide a VC client for smartphones & iPads with secure video/data encryption.
27	Whiteboard Features	Multi-touch interactive whiteboard (upto 20 points), handwriting-to-text, AI shape recognition, math/science tools, sticky notes, text editing, real-time collaboration, export to PDF, YouTube & Google integration, browser panel, 3D model viewer, screen capture
28	Accessories	Power Cord ×1, Stylus Pen ×2, Wall Mount Kit ×1, Remote Control ×1, User Manual ×1
29	Certifications	**BIS, CE, FCC & RoHS**

2. Ultra-thin Retractable Screen - Touch		
S No	**Parameter**	**Specification**
1	Model	Touch
2	Display Size	15.6" or better
3	Front Display Resolution	1920 × 1080 (Full HD) or better
4	Aspect Ratio	16:09
5	Touch Screen	10-point capacitive touch
6	Touch Sensitivity	≤ 2
7	Touch Response Time	≤ 3 ms
8	Panel Material	Ultra-thin 3mm anodized aluminum, width 70mm
9	Appearance/Color	Black or Silver anodized finish
10	Panel Buttons	Raise, Lower, Stop, Forward, Backward
11	Lifting Mechanism	Linear guides + chain drive, AC geared motor driven
12	Screen Tilt	Automatic 15° tilt after lifting
13	Lift Control Modes	RF remote control (≤30m), Manual Control, RS232/RS485
14	Video Input	HDMI × 2
15	USB Port	Retractable USB-A on panel for file reading/local browsing
16	Touch Input	USB-B ×1 (Touch data input to PC)
17	Control Interfaces	RJ45 ×2 (RS-485/RS-232 protocols supported)
18	Power Supply	External 12VDC input
19	Safety Functions	Anti-pinch and Anti-obstacle detection
20	Brightness	300 cd/m² or better

21	Contrast Ratio	600:1 or better
22	Visual Angle	45°/45°/20°/40° (typical)
23	Max Power Consumption	60W
24	Operating Temperature	–10°C to +45°C, RH ≤80%
25	Installation Method	Embedded
26	Product Dimensions (WxDxH)	422×70×553 mm

3. 30x Optical Zoom Camera		
S No	**Parameter**	**Specifications**
1	Sensor	The camera sensor should be 1/1.55”, CMOS, Total pixel : 50MP
2	White Balance	The camera should have an Option of Auto or Manual White Balance.
3	Scanning Mode	Progressive
4	Back Light Compensation	The camera should have a selectable Back-light compensation
5	Noise Reduction	3D or better
6	S/N ratio	The camera should have a S/N Ratio of ≥ 55dB
7	Zoom	The camera should have a 30x optical zoom and 16x digital zoom or better
8	AI Feature	The camera should have Presenter Tracking
9	Interface	The camera should have a standard Video Output and should support HDMI/DVI and 3G-SDI Ports so that Camera can be integrated with standard End Points. Apart from that , It should have native USB 3.0 support along with HDMI/DVI support so that it can also be connected with Software based VC Solution.
10	RJ-45	It should have atleast 1 RJ-45 Port for IP Camera functions.
11	Signal Support	The camera should support 1080p@60fps
12	Control Port	The camera should have an RS 232 in and out port for Communication
13	Presets	The camera should have at least 255 Position Presets
14	Field Of View	The camera should have 59° HFoV or better field of view
15	Pan Range	The camera should have a Pan Rotation Angle of -170 degrees to +170 Degrees or better
16	Tilt Range	The camera should have a Tilt Rotation Angle of -30 degrees to + 90 degrees or better
17	Accessory	The camera should be supplied with IR remote control as an included accessory.
18	Certifications	It should have BIS,CE,FCC,RoHS
19	OEM Factory	OEM should have Manufacturing Unit/ Factory in India and factory should be registered under Factory Registration act of India.

4. 12 Channel Pro Audio DSP		
S No	**Parameter**	**Specifications**
1	Type	Professional digital signal processor (DSP) supporting a minimum of 12 audio input processing channels.
2	Mic Inputs	It Should have 8 or more Microphones input interface with phoenix connector.
3	Line inputs Type-1	It Should have 2 Line input interfaces, usually for the local audio source, i.e., DVD, laptop, etc. phoenix connector.
4	Line Inputs Type-2	It Should have 2 Line input interfaces, usually for AEC reference signal input, phoenix connector.
5	Line Outputs Type-1	It Should have 2 Line output interfaces, usually for the external recording device, phoenix connector.
6	Line Outputs Type-2	It Should have 2 Line output interfaces, usually for AEC signal output, phoenix connector.
7	Line Outputs Type-3	It Should have 2 Line output interfaces, usually for external amplifier or active loudspeaker for remote and local audio playback, phoenix connector.
8	Other Ports	It should have at least one Wireless microphone input, 3.5mm audio connector.monitor headphone interface, 3.5mm connector.
9	Control Port	It should have 1xRS232 for connected to the control terminal, phoenix connector
10	ETHERNET	It should have at least one Ethernet port for Configuration/control interface, RJ45 connector.
11	USB/Stereo 3.5mm Interface for Soft calls	It should have at least one USB2.0/Stereo 3.5mm type A interface, supports bidirectional audio data transmission, can be more convenient to integrate into the OPS or PC as a sound card application
12	Software	It should support software to achieve special features like Acoustic Echo Cancellation configuration, NLP(Nonlinear Processing) Setting, Noise Reduction Setting, AGC(Automatic Gain Control) Setting, Dereverberation Setting, High-Pass Filter Setting, Low-Pass Filter Setting, Parameter Equalizer Setting, Leveler Setting, Auto Mixer Setting, Level Control Setting, Matrix Mixer Setting
13	Ceiling Microphone	Each microphone should have Pick up radius: 4.5m Max It should be supplied with 4 ceiling microphones right from day 1
14	Certifications	CE,FCC and RoHS

5. Wireless Microphone System		
S No	**Parameter**	**Specifications**
	Receiver	
1	Wireless Microphone System	It should be supplied with 1 Wireless Handheld and 1 headband microphones
2	Out Put	The receiver should have 1 number mixed Output

3	Frequency Band	The Microphones & Receiver should work on UHF frequency band.
4	Frequency Response	It should have a frequency response of 40Hz to 17000 Hz or better.
5	Antennas	It should have as 2x Antennas
6	Interface	It should have 1x output port as 6.3mm phono type.
7	Mount	It should have 1 Rack unit hight with ability to mount in rack.
8	Power	It should be supplied with 12 VDC power adapter.
5.1. Hand Held Transmitter		
9	RF Output Power	10mW (Max)
10	Carrier Frequency Range	600-699MHZ
11	Modulation Mode	FM
12	Microphone Element	Dynamic, Cardioid
13	Frequency Response	50-15,000HZ
14	Current Consumption	< 150m
15	Controls	POWER ON/OFF switch,
5.2. Body Pack Transmitter		
16	RF Output Power	10mW (Max)
17	Carrier Frequency Range	600-699MHZ
18	Modulation Mode	FM
19	Microphone Element	Condenser Mic
20	Frequency Response	50-15,000HZ
21	Current Consumption	< 150m
22	Controls	POWER ON/OFF switch, Volume control

6. Wall Mount Speakers		
S No	**Parameter**	**Specifications**
1	Enclosure Material	The system should be made of ABS Plastic
2	Woofer type	The system should be have polypropylene cone woofer
3	Woofer size	The system should be have woofer size of 5.25" or higher
4	Tweeter type	The system should be have Titanium dome type Tweeter
5	Tweeter size	The system should be have Tweeter size of 1" or higher
6	Frequency response	It should be frequency bandwidth 90HZ – 20 kHz
7	Impedance	It should have impedance of 8 ohms or higher

8	SPL (Sound Pressure Level)	It should have SPL of 90dB or higher
9	Power (RMS)	It should have 50 watts or higher Power (RMS)
10	Connectors	It should have 1 (one) pair metal binding terminal type connectors
11	Type of Mounting	It should be wall-mounting or higher
12	Dual axis Mounting	It can be mounted vertically or horizontally in both axis

7. Audio Amplifier		
S No	**Parameter**	**Specifications**
1	Gain Control	The system should have the facility to control the gain of microphone.
2	Indicator	The system should have LED indicator for status.
3	Frequency Response	The Frequency response should be 20Hz – 20000 Hz.
4	Amplifier Type	The system should be Class-D type digital amplifier with with Bass, treble Equalizer.
5	Channel	It should have 2 channel stereo output
6	Power	The Amplifier should have 200 Watts at 8 Ohms
7	Channel	The Amplifier should be inbuilt with 2 channel from day 1.
8	Line Input	It should have Line Inputs as 1 x 2RCA
9	Line Output	It should have Line Outputs as 1 x 2RCA
10	Mic Input	It should have 2x phoenix Microphone Inputs with separate gain controller
11	Unbalanced Input	It should have 1 Unbalanced Microphone 6.5mm Phono Input with gain controller
12	RS232 port	Amplifier should have 1 X RS232 port for controlling
13	Form Factor	The system should be standard 19 inches Rack Mountable or better.
14	Certification	CE, FCC and RoHS Certification
Wired Digital Conference System – Tender Specifications		
A) Conference System Controller – Technical Specifications		
S No	**Parameter**	**Specification**
1	System Architecture	Full-digital audio transmission using digital ring-network technology
2	Supported Units	Expandable up to 5200 discussion units (with external power units)
3	Audio Sampling Rate	48 kHz
4	Frequency Response	20 Hz – 20,000 Hz
5	Signal-to-Noise Ratio	> 96 dBA
6	Total Harmonic Distortion	< 0.05%
7	Crosstalk	> 85 dB
8	Dynamic Range	> 94 dB

9	Discussion Modes	OPEN, OVERRIDE (FIFO), VOICE (auto-mic), APPLY (request-to-speak)
10	Max Active Mics	Active units at the same time will be 2 Chairman and 6 Delegates
11	Equalizer	16-segment equalizer, AGC, AFC, Noise Gate
12	Feedback Suppression	Automatic feedback cancellation technology
13	Audio Inputs	1 × RCA, 1 × XLR
14	Audio Outputs	1 × RCA, 1 × XLR + 6 × Phoenix connectors
15	Digital Audio Ports	2 × RJ45 digital audio outputs
16	Control Ports	RS-232, RS-485, RJ45 for central control
17	Camera Control	VISCA / PELCO protocols supported for auto-tracking
18	Recording Support	USB recording supported
19	Monitoring	3.5 mm headphone monitoring
20	Ethernet Port	1 × RJ45 (PC / network control)
21	Power Supply	100 – 240V AC
22	Static Power Consumption	12W
23	Max Power Consumption	150W
24	Dimensions	483 × 260 × 43.6 mm (W × D × H)
25	Mounting	19" rack-mountable
26	Weight	Approx. 3 kg
B) Chairman / Delegate Unit – Technical Specifications		
S No	**Parameter**	**Specification**
1	Microphone Type	Cardioid condenser gooseneck microphone
2	Frequency Response	20 Hz – 20,000 Hz
3	Sensitivity	−46 dBV/Pa
4	Equivalent Noise	20 dBA SPL
5	Maximum SPL	125 dB (THD < 3%)
6	Audio Processing	AGC / AFC / ANC / Auto-mix
7	Indicator	Two-color LED (Red = Mic ON, Green = Request to speak)
8	Display	OLED 128 × 32 mm (volume, clock, mic status, timer)
9	Buttons	Mic ON/OFF; Chairman: Priority & Consent buttons
10	Built-in Speaker	Auto-mute when mic is active
11	Headphone Ports	Dual 3.5 mm jacks with adjustable volume
12	Power Consumption	≤ 2W
13	Interfaces	2 × RJ45 for loop-through
14	Cabling	CAT5 / CAT6
15	Housing Material	ABS
16	Dimensions	195 × 120 × 60 mm
17	Weight	Approx. 1.1 kg (with microphone)
18	Operating Temperature	0°C to +55°C
C) Gooseneck Microphone – Technical Specifications		

S No	Parameter	Specification
1	Directivity	Cardioid
2	Frequency Response	30 Hz – 20,000 Hz
3	Sensitivity	−46 dBV/Pa
4	Equivalent Noise	20 dBA (SPL)
5	Signal-to-Noise Ratio	≥ 96 dB
6	Type	Condenser
7	Max SPL	125 dB (1% THD)
8	Connection	Mini 6-pin connector
9	Length	485 mm
10	Weight	80 g
11	LED Ring	Dual-color LED (Red/Green)
12	Operating Temperature	0°C – 45°C
65" Interactive Display with integrated camera & MIC		
S No	**Parameter**	**Specifications**
1	Display Panel Size	65 Inches or higher
2	Light Source	DLED backlight
3	Resolution	3840 × 2160 (4K UHD)
4	Refresh Rate	60Hz
5	Aspect Ratio	16:9 or better
6	Display Colour	1.07 Billion colors (10-bit) or higher
7	Surface	4mm Anti-glare tempered glass
8	Brightness	500 +/- 50 cd/m² (typical) or better
9	Contrast Ratio	1200:1 or better
10	Viewing Angle	178° (H/V)
11	Response Time	8 ms or less
12	Backlight Life	≥ 50,000 hours or better
13	Touch Technology	IR Touch
14	Touch Points	40 touch points on Android & Windows or better
15	Touch Response	≤ 5ms or less
16	Touch Accuracy	±2mm or less
17	CPU	Octa core A55 or better
18	GPU	Quad-core MaliG52
19	RAM + ROM	8GB RAM + 128GB Storage or better
20	Operating System	Android 14.0 or better
21	Wi-Fi	IEEE 802.11 a/b/g/n/ac,2.4GHz/5GHz
22	Bluetooth	5 or latest
23	In-build camera	48 MP
24	integrated Mic	with 8 in built Mic
25	Speakers	2 × 20W or better
26	Interfaces (Front)	3 × USB 2.0/USB 3.0 (Optional), 1 × HDMI 2.0, 1 × Touch USB, 1 × USB Type-C (Data)

27	Interfaces (Onboard)	1 × USB 3.0, 1 × USB 2.0, 1 × RS232, 1 × VGA Audio In, 1 × VGA, 2 × HDMI (1 ARC), 1 × TF Card, 1 × LAN In, 1 × Line OUT, 1 × COAX, 1 × Touch Out
28	Built in VC Software	The solution should support up to 100 participants in an online session, allow transmission of up to 4 camera feeds simultaneously, and provide 4K video, chat, data collaboration, and whiteboard features. It should also support local recording of sessions, have valid Web Security / Vulnerability & Penetration Testing Certificates, and the Interactive Display with VC software must be from the same OEM
29	Additional Features	The system should include a scheduling option with VC link sharing, support multiple cameras (minimum 4) with voice-activated switching layout, and offer advanced bandwidth optimization. It must support webinars with Q&A via chat along with YouTube live integration, and provide a VC client for smartphones & iPads with secure video/data encryption. The solution must support enterprise-grade calendar and third-party application integration (Google, Office 365, Teams, Webex, Meet), ensuring seamless scheduling, cross-platform collaboration, and interoperability with existing systems.
30	OPS	i5 OPS with 8GB RAM & 256 SSD, Win IOT
31	Power Consumption	100–240V AC, 250W max, ≤0.5W standby
32	Environmental Factors	Operating Temp 0–40°C, Humidity 10–90% RH, Storage Temp –20–60°C
33	Accessories	Power Cord ×1, Stylus Pen ×2, Wall Mount Kit ×1, Remote Control ×1, User Manual ×1
34	Certifications	**CE, FCC, RoHS**

Table 1:

Sl. No	Item Description	Qty
1	Controller Hybrid	1 No.
2	Chairman Microphone	1 No.
3	Delegate Microphone	20 Nos.
4	Audio Amplifier 200W	1 No.
5	Wall Mount Speakers	2 Pairs (4 Nos.)
6	Wireless Handheld Microphone System	2 Nos.
7	12 Channel Pro Audio DSP	1 No.
8	98" Interactive Display	1 No.
9	Ultra-thin Retractable Screen 15.6" Touch	2 Nos.
10	30x Optical Zoom PTZ Camera	1 No.
11	OPS (i5, 8GB RAM, 256GB SSD, Win IoT)	2 Nos.
12	65" Interactive Display with integrated Mic & Camera	1 No.

Note: *The Purchaser reserves the right to vary the quantities specified in Table 1 as per requirements and provisions in KTPP act.*

1. The bidder must bid for all the Components detailed in Table 1. Bidder is advised to note the qualification criteria specified in **Section VII** to qualify for the award of the tender.
2. Interested bidders may view and download the Bid document from the e-procurement portal of the Government of Karnataka at https://eproc.karnataka.gov.in.
3. For participation in the bidding, it is mandatory for the bidder to obtain Class-III Digital Signature Certificate (DSC) from one of the authorized Certifying Authorities (CA) and then register with the Government of Karnataka e-procurement platform and submit bids by using their user ID and Digital Signature. Bidder already possessing the Digital Signature issued from authorized CAs can use the same in this bid. Bidder should note that they are required to obtain separate DSCs for signing and encryption, issued by the same CA, for participating in the electronic bid submission.
4. Bid Processing Fee: Interested bidder who wishes to participate shall pay bid processing fee through any of the following options only:
    a. Credit Card,
    b. Debit Card
    c. National Electronic Funds Transfer (NEFT)
    d. Net banking
    e. Over the Counter (OTC) – designated ICICI bank branches located across the country. Please note that payments submitted through cheque shall not be accepted. Further details regarding Payment; please refer to e-Procurement website – www.eproc.karnataka.gov.in.

If bidder chooses to pay the processing fee through OTC mode then bidder has to upload the receipt given by the bank at the time of uploading the documents through Over the Counter (OTC) in e-procurement website and also submit original copy of receipt within the time prescribed.

5. Only online submission of bids is permitted. Therefore, bids must be submitted online through https://kppp.karnataka.gov.in.
6. Other details can be seen in the bidding documents.
7. The address for communication is as under:

(All enquiries, requests and suggestions regarding the current Bid shall be through e-mail only)

Important Section II: Instructions to Bidder

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Section II: Instructions to Bidder

A. Introduction

1. Eligible Bidder

1.1. Bidder should not be associated or have been associated in the past directly or indirectly with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents used for the procurement of Goods to be purchased under this Invitation for Bids.

1.2. Bidder shall not be under any declaration of ineligibility for corrupt and fraudulent practices issued by Government of Karnataka.

2. Cost of Bid

2.1. The Bidder shall bear all costs associated with the preparation and submission ofits Bid, and **Bangalore Development Authority** hereinafter referred to as "**the Purchaser**" will, in no case, be responsible or liable for these costs, regardless of the conduct or outcome of the Bid process.

B. Bid Documents

3. Contents of Bid Documents

3.1. The goods required, Bidding procedures and contract terms are prescribed in the Bid documents. In addition to the Invitation for Bids, the Bid documents include

a) Instruction to Bidder (ITB);
b) General Conditions of Contract (GCC);
c) Special Conditions of Contract (SCC);
d) Schedule of Requirements;
e) Technical Specifications;
f) Bid Form and Price Schedule;
g) Contract Form;
h) Performance Security Form;
i) Performance Statement Form;
j) Manufacturer's Authorization Form;
k) Service Support Details Form
l) Bidder's Information Form
m) Power of Attorney Format
n) Technical Compliance Report

3.2. The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bid documents. Failure to furnish all information specified in the Bid documents or submission of a Bid not substantially responsive to the Bid

documents in every respect will be at the Bidder's risk and may result in rejection of its Bid.

4. Clarification of Bid Documents

4.1. A prospective Bidder requiring any clarification regarding the Bid documents may notify the Purchaser through email to the Purchaser using the Purchaser's email id indicated in the Invitation for Bids. The Purchaser will respond to any request for clarification of the Bid documents, which is received no later than 24 hours prior to the Pre bid Meeting. Purchaser's response (including an explanation of the query but without identifying the source of inquiry) shall be put up on E- Procurement Portal under Addendum/ Corrigendum.

5. Amendment of Bid Documents

5.1. At any time prior to the deadline set for submission of Bids, the Purchaser may, for any reason, whether on own initiative or in response to a clarification requested by a prospective bidder, modify the Bid documents by amendment.

5.2. All amendments, if any, will be uploaded on E-Procurement Portal under Addendum/Corrigendum.

5.3. In order to allow prospective bidder reasonable time in which to take the amendment into account in preparing their Bids, the Purchaser, at its discretion, may extend the deadline for the submission of Bids**.**

C. Preparation of Bids

6. Language of Bid

6.1. The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written **in English language.** Should it be necessary to use supporting documents and printed literature in another language, the same shall be accurately translated into **English language** and be duly notarized. For purposes of interpretation of the Bid, such translation shall govern.

7. Documents Constituting the Bid

7.1. The Bid shall comprise the following documents:

a) Bid Form and Price Schedule completed in accordance with **ITB Clauses 8, 9 and10**;

b) Documentary evidence established in accordance with **ITB Clause 11** that the Bidder is eligible to Bid and is qualified to perform the contract if its Bid is accepted;

c) Documentary evidence established in accordance with **ITB Clause 12** that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the Bid documents; and

d) Bid security furnished (EMD) in accordance with **ITB Clause13**

8. Bid Form

8.1. The Bidder shall complete the **Bid Form** and the appropriate **Price Schedule** provided in the Bid documents **(Section VIII),** indicating the Goods to be supplied, a brief description of the goods, quantity and prices.

9. Bid Prices

9.1. The Bidder shall indicate on the Price Schedule (on e-Procurement Portal) the All-inclusive Unit Rates of the goods it proposes to supply under the Contract. Bidder shall quote for the complete requirement of goods and services specified under Schedule of Requirements on a single responsibility basis, failing which such Bids will not be taken into account for evaluation and will not be considered for award.

9.2. The Prices shall be indicated on e-Procurement Portal as explained in **Section VIII** under **"Price Schedule".**

9.3. The Bidder's separation of the price breakup in accordance with **ITB Clause 9.2** above will be solely for the purpose of facilitating the comparison of Bids by the Purchaser and will not in any way limit the Purchaser's right to contract on any of the terms offered. The Bidder shall submit the price break up if required by the purchaser

9.4. Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account. A Bid submitted with an adjustable price quotation will be treated as non-responsive and rejected, pursuant to **ITB Clause 22.**

9.5. Bidder shall quote for all the components specified in Section V.

10. Bid Currency

10.1. Prices shall be quoted in Indian Rupees

11. Documents Establishing Bidder's Eligibility and Qualifications

11.1. Pursuant to **ITB Clause 7**, the Bidder shall furnish, as part of its Bid, documents establishing the Bidder's eligibility to Bid and its qualifications to perform the Contract if its Bid is accepted

11.2. The documentary evidence of the Bidder's qualifications to perform the contract if its Bid is accepted shall establish to the Purchaser's satisfaction:

(a) That in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized (as per authorization form in **Section XII**) by the Goods' Manufacturer or producer to supply the Goods in India.

[Note: Supplies for any particular item in the schedule of requirements of the Bid should be from one manufacturer only. Bids offering supplies from

different manufacturers for the same item of the schedule in the Bid will be treated as non-responsive.]

(b) That the Bidder has the financial and technical capability necessary to perform the Contract and meets the criteria outlined in the Qualification requirements specified in **Section VII.**

12. Documents Establishing the Goods' Eligibility and Conformity to Bid documents

12.1. Pursuant to **ITB Clause 7**, the Bidder shall furnish, as a part of its Bid, documents establishing the eligibility and conformity to the Bid documents of all goods and services which the Bidder proposes to supply under the contract.

12.2. The documentary evidence of conformity of the goods and services to the Bid documents to be submitted by the Supplier shall consist of:

- An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services tothose specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- A confirmation that, if the bidder offers system and/or other software developed by another company, such software operates effectively on the system offered by the bidder; and the bidder is willing to accept responsibility for its successful operations; and
- A confirmation that the bidder is either the owner of the Intellectual Property Rights in the hardware and software items offered, or it has the proper authorization and/or license from the owner to offer them. Willful misrepresentation of these facts will lead to the cancellation of the Contract without prejudice of other remedies that the Purchaser may take.

13. Earnest Money Deposit (EMD)

13.1. Pursuant to **ITB Clause 7**, the Bidder shall furnish, as part of its Bid, an earnest money deposit in the amount as specified in **Section-V - Schedule of Requirements**.

13.2. The earnest money deposit is required to protect the Purchaser against the riskof Bidder's conduct which would warrant the security's forfeiture, pursuant to **ITB Clause 13.7**

13.3. The earnest money deposit shall be denominated in Indian Rupees.

i. The EMD amount to be paid is specified in **Section V: Schedule of Requirements.** The bidder shall pay EMD through any of the following e-Payment modes available in e-Procurement portal. For further details the Bidder may contact e Procurement Helpdesk.

Credit Card / Debit Card, Net Banking, NEFT / RTGS, Over-the-Counter (OTC)

Table 2:

Sl. No.	Item	EMD (in Rs.)
1.	**For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System at BDA**	**Refer KPPP Portal**

ii. Pursuant to Bidder Information Form in **Section XIV** the Bidder shall clearly indicate the item the Bidder is bidding for and the details of the EMD submitted.

iii. Be substantially in accordance with one of the forms of earnest money included in **Section V.**

iv. The EMD shall remain valid for a period of 45 days beyond the original validity period of tenders, or beyond any period of extension subsequently requested under ITB Clause 14.2.

vi. If the EMD submitted doesn't match with the EMD required for the applicable item, the purchaser reserves the right to disqualify the Bidder.

13.4. Any Bid not secured in accordance with ITB Clauses from 13.1 to 13.3 above will be rejected by the Purchaser as non-responsive, pursuant to **ITB Clause 22.**

13.5. Unsuccessful Bidder's Bid securities will be discharged /returned as promptly as possible but not later than 30 days after the expiration of the period of Bid validity prescribed by the purchaser, pursuant to **ITB Clause 14.**

13.6. The successful Bidder's Bid security will be discharged upon the Bidder signing the Contract, pursuant to **ITB Clause 30**, and furnishing the performance security, pursuant to **ITB Clause 31.**

13.7. The Bid security may be forfeited:

a) If a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Bid Form; or

b) In case of a successful Bidder, if the Bidder fails:

i. To sign the Contract in accordance with **ITB Clause 30**; or

ii. To furnish performance security in accordance with **ITB Clause 31**

14. Period of Validity of Bids

14.1. Bids shall remain valid for the period of **180 days** after the Bid submission deadline date prescribed by the Purchaser in accordance with **ITB 17**. A Bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.

14.2. In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made through Email only. The earnest money deposit provided under ITB Clause 13 shall also be suitably extended. A Bidder may refuse the request

without forfeiting its earnest money deposit. A Bidder granting the request will not be required nor permitted to modify its Bid.

15. Format and signing of Bid

15.1. The Bidder shall prepare the documents comprising the Bid as described in **ITB 7** and further specified under various sub-clauses of **ITB 15** & **ITB 16**. In addition, the Bidder shall produce originals of the Earnest Money Deposit and any other as necessary document as specified in **ITB 13.** In the event of any discrepancy between the original and the uploaded documents, the original shall prevail.

15.2. The original and all copies of the bid documents shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The latter authorization shall be indicated by written power-of-attorney accompanying the bid. All pages of the bid, except for un amended printed literature, shall be initialed by the person or persons signing the Bid. In addition, all declarations and photo- copies of certificates, except those pertaining to financial capabilities, submitted in support of the qualification requirements shall be notarized. Documents relatedto financial capabilities shall be attested by a Chartered Accountant.

15.3. Any interlineations, erasures or overwriting shall be valid only if they are initialed by the persons or persons signing the Bid.

15.4. The Bidder shall submit the following to the Purchaser so as to reach him before the date and time specified for opening of Technical Bids.

i. Bidder Information Form, as per **Section XIV** – in Original.

D. Submission of Bids

16. Online Submission of Bids

16.1. The Bidder shall submit the Bids electronically through the e-procurement portal https://www.eproc.karnataka.gov.in. Submission of bids by any other means will not be considered as part of the Bid except for the documents/ itemsspecified in **ITB clause 15.4.**

a. The address for submission of documents/ items specified in **ITB clause 15.4** is as under.

The Head of EDP Cell

Head Office - BDA,

Kumara Park West, T.Chowdaiah Road,

Bengaluru - 560020

b. The Purchaser shall not accept any postal/ courier delays in submission of documents / items specified in **ITB clause15.4.**

17. Deadline for Submission of Bids

17.1. Bids must be uploaded in the E-procurement portal within the timelines specified in IFB 9.

17.2. The Purchaser may, at its discretion, extend deadline for submission of bids through amendments in accordance with ITB Clause 5, in which case all rights and obligations of the Purchaser and Bidder previously subject to the deadline will thereafter be subject to the deadline as extended.

17.3. All the documents required as per **Section VII (Qualification Criteria)** shall be uploaded as part of technical bid.

18. Late Bids

18.1. The e-Procurement platform would not allow late submission of Bids after due date & time as per server system. After bids are submitted online, the system will generate a time stamped unique identification number. This shall be treated as acknowledgement of the Bid submission.

19. Modification and withdrawal of Bids

19.1. A Bidder may withdraw, substitute, or modify its Bid on the e-procurement system, in accordance with the process defined below:

a) For Bid modification and consequential re-submission, the Bidder is required to withdraw his Bid submitted earlier. The last modified Bid submitted by the Bidder within the Bid submission time shall be considered as a responsive Bid. In online system of Bid submission, the modification/ cancellation is allowed any number of times.

19.2. No Bid may be modified subsequent to the deadline for submission of Bids.

19.3. No Bid may be withdrawn in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Bid Form. Withdrawal of a Bid during this interval may result in the Bidder's forfeiture of its earnest money deposit, pursuant to **ITB Clause 13.7.**

E. Bid Opening and Evaluation of Bids

20. Opening of Bids by the Purchaser

20.1. The Purchaser will open Technical Bids, in the presence of Bidder' representatives who choose to attend, as per Tender document at the following location

The Head of EDP Cell,

Head Office - BDA, Kumara Park West,

T.Chowdaiah Road, Bengaluru – 560020

The Bidder' representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of Bid opening beingdeclared a holiday for the Purchaser, the bids shall be opened at the appointedtime and location on the next working day.

20.2. The Purchaser will open/ decrypt all Technical Bids uploaded through e-procurement platform in the presence of the Bidder's representatives who choose to attend at the stipulated place, date and time.

21. Clarification of Bids

21.1. During evaluation of Bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its Bid. The request for clarification and the response shall be via Email.

22. Preliminary Examination

22.1. The Purchaser will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required suretieshave been furnished, whether the documents have been properly signed, and whether the Bids are generally in order. Bids without proper authorization from the manufacturer, as per **Section XII**, shall be treated as non-responsive.

22.2. The Purchaser may waive any minor informality or non-conformity or irregularity in a Bid which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any Bidder.

22.3. Prior to the detailed evaluation, pursuant to **ITB Clause 23**, the Purchaser will determine the substantial responsiveness of each Bid to the Bid documents. For purposes of these Clauses, a substantially responsive Bid is one which conforms to all the terms and conditions of the Bid documents without material deviations. Deviations from or objections or reservations to critical provisions such as those concerning Performance Security (GCC Clause 6). Warranty/Service (GCC Clause 10), Force Majeure (GCC Clause 19), Limitation ofliability (GCC Clause 23), Applicable law (GCC Clause 25), and Taxes & Duties (GCC Clause 27) will be deemed to be a material deviation. The Purchaser's

Determination of a Bid's responsiveness is to be based on the contents of the Bid itself without recourse to extrinsic evidence

22.4. If a Bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

23. Evaluation and Comparison of Bids

23.1. The Purchaser will evaluate and compare the Bids which have been determinedto be substantially responsive, pursuant to **ITB Clause 22**. The purchaser will open the commercial Bids of only that bidder who qualify in the technical bid evaluation, pursuant to **ITB Clause 22**.

24. Contacting the Purchaser

24.1. Subject to **ITB Clause 21**, no Bidder shall contact the Purchaser on any matter relating to its Bid, from the time of the Bid opening to the time the Contract is awarded. If the Bidder wishes to bring additional information to the notice of the purchaser, it should do so via email only.

24.2. Any effort by a Bidder to influence the Purchaser in its decisions on Bid evaluation, Bid comparison or contract award may result in rejection of the Bidder's Bid.

F. Award of Contract

25. Post-qualification

25.1. In the absence of pre-qualification, the Purchaser will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive Bid meets the criteria specified in **ITB Clause 11** and is qualified to perform the contract satisfactorily

25.2. The determination will take into account the Bidder's financial and technical capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to **ITB Clause 11** and **Section VII**, as well as such other information as the Purchaser deems necessary and appropriate.

25.3. An affirmative determination will be a pre-requisite for award of the Contract to the Bidder. A negative determination will result in rejection of the Bidder's Bid.

26. Award Criteria

26.1. Subject to **ITB Clause 28**, the Purchaser shall award the Contract to the Bidder whose Bid has been determined to be substantially responsive and has been determined as the lowest evaluated Bidder (L1 Bidder), provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

27. Purchaser's Right to Vary Quantities at the time of Award

27.1. Till the final commissioning of the project, the Purchaser reserves the right to increase or decrease by up to 25 percent of the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit rate or other terms and conditions. The payment will be made as per actual quantities.

28. Purchaser's Right to Accept Any Bid and to reject any or All Bids

28.1. The Purchaser reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidder.

29. Notification of Award

29.1. Prior to the expiration of the period of Bid validity, the Purchaser will notify the successful Bidder in writing and through e-Mail, to be confirmed in writing and by e-Mail, that its Bid has been accepted.

29.2. The notification of award will constitute the formation of the Contract

29.3. Upon the successful Bidder's furnishing of performance security pursuant to **ITB Clause 31**, the Purchaser will promptly notify the name of the winning Bidder on e-Procurement portal and will discharge its earnest money deposit, pursuant to **ITB Clause 13**.

29.4. If, after notification of award, a Bidder wishes to ascertain the grounds on which its Bid was not selected, it should address its request to the Purchaser through e-Mail. The Purchaser will promptly respond through Email to the unsuccessful Bidder.

30. Signing of Contract

30.1. At the same time as the Purchaser notifies the successful bidder that its Bid has been accepted, the Purchaser will send the Bidder, through e-Mail, the Contract Form provided in the Bid documents, incorporating all agreements between the parties.

30.2. Within 10 (Ten) days of receipt of the Contract Form, the successful Bidder shall sign and date the Contract and return it to the Purchaser.

31. Performance Security

31.1. Within 7 (seven) days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the Performance Security in accordance with the **GCC**, using the Performance Security Form included in **Section X** or in another Form acceptable to the Purchaser.

31.2. Failure of the successful Bidder to comply with the requirement of **ITB Clause 30.2** or **ITB Clause 31.1** shall constitute sufficient grounds for the annulment of the award and forfeiture of the earnest money deposit, in which event the Purchaser may take steps as per prevalent rules.

32. Corrupt and Fraudulent Practices

32.1. The Government requires that Bidder/ Suppliers/ Contractors/ Dealers observe the highest standard of ethics during the procurement and execution of Government financed contracts. In pursuance of this policy, the Government

a) defines, for the purposes of this provision, the terms set forth as follows:

i. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and

ii. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Government, and includes collusive practice among Bidder (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the Government of the benefits of free and open competition;

b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a Government financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for,or in executing, a Government financed contract.

32.2. Furthermore, Bidder shall be aware of the provision stated in **GCC Sub-Clause 4.4** and **GCC Sub-Clause 23.1.**

32.3 The performance security shall be in the form of a demand draft/ Bank guarantee from a scheduled Bank in favour of the Department.

32.4 The performance security shall be remain valid for a period covering the cantract duration and **Defect liability period** (DLP) and will be released only after satisfactory completion of the contract and final settlement of account

Section III. General Conditions of Contract

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General Conditions of Contract (GCC)

1. Definitions	**1.1** In this Contract, the following terms shall be interpreted as indicated:		
	(a)	Contract	The Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including allattachments, appendices, and all documents incorporated by reference therein.
	(b)	Contract Documents	The documents listed in the Contract Agreement, including any amendments thereto.
	(c)	Contract Price	Means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
	(d)	Completion	Means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
	(e)	The Goods	The Goods and Services specified in Section V, which the Supplier is required to supply to the Purchaser under the Contract
	(f)	Services	Services ancillary to the supply of the Goods, such as installation, commissioning, provision of maintenance and technical support, training and other obligations of the Supplier covered under the Contract.
	(g)	All-inclusive Price	As detailed in **Section VIII.**
	(h)	Purchaser	Purchaser means the Bangalore Development Authority, which is the procurement agency on behalf of the Government of Karnataka.
	(i)	Office	BDA Division Offices
	(j)	Head of the Office	Head of the BDA respective division Offices.
	(k)	Delivery Locations	Institutions where the Goods shall be supplied and installed as per the Contract;
	(l)	BDA	Bangalore Development Authority.
	(m)	Bidder	Bidder means the party who submits the Bid in pursuance of the Bid floated.
	(n)	SuccessfulBidder	Successful Bidder means the Bidder who succeeds in the Bid process.
	(o)	Supplier	The successful Bidder with whom the purchase order is placed.
	(p)	Commissioning	Commissioning means installation of all Components and testing its functions for operations in the presence of the Head of the Institution, at the specified delivery

			locations.
	(q)	District	District means the geographical division within the State of Karnataka. At present, there are 30 Districts in the State.
	(r)	Authorized Service Centre	Authorized Service Centre means a Service Centre run by the Bidder through another party by entering into a valid commercial Agreement.
	(s)	Cost	Cost means the total cost to be incurred towards the purchase of Goods and also charges to be incurred towards maintenance of Goods during the contract period.
	(t)	Day	Day means a calendar day.
	(u)	"GCC" and"SCC"	Means General Conditions of Contract and Special Conditions of Contract respectively.
	(v)	Project Site	Means the place named in the SCC.

2. Application	These General Conditions shall apply to the extent that they are notsuperseded by provisions in other parts of the Contract.
3. Standards	The Goods supplied under this Contract shall conform to the standardsmentioned in the Technical Specifications
4. Use of Contract Documents and Information ;Inspection and Audit bythe Governmen t	**4.1** The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to anysuch employed person shall be made in confidence and shall extend only sofar as may be necessary for purposes of such performance. **4.2** The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated in GCC Clause **4.1** except for purposes of performing the Contract. **4.3** Any document, other than the Contract itself, enumerated in GCC Clause **4.1** shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance underthe Contract if so required by the Purchaser. **4.4** The supplier shall permit the Government to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the Government, if so required by the Government.
5. Patent Rights	**5.1** The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

6. Performance Security	**6.1** Within 07 days of receipt of the notification of contract award, theSupplier shall furnish Performance Security to the Purchaser for an amount of **5%** of the Contract Value, valid up to 90 days or defect liability which Everts longer after the date of completion of performance obligations including Warranty/service obligations. **6.2** The performance security shall be forfeited by the supplier as compensation for the Supplier's failure to complete any of its obligations under the Contract. **6.3** The Performance Security shall be denominated in Indian Rupees and shall be in the form of a Bank guarantee issued by a scheduled commercialbank in the form provided in the Bid documents or another form acceptable to the Purchaser. **6.4** The Performance Security will be discharged by the Purchaser and returned to the Supplier not later than 90 days following the date of completion of the Supplier's performance obligations, including any warranty/service obligations, under the Contract. **6.5** In the event of any contract amendment, the Supplier shall, within 20 days of receipt of such amendment, furnish the amendment to thePerformance Security, rendering the same valid for the duration of the Contract as amended for 90 days after the completion of performance obligations including Warranty/service obligations.
7. Inspections andTests	**7.1** The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the SCC. **7.2** The inspections and tests may be conducted on the premises of the Supplier and/or at the Goods' final destination. **7.3** Goods to be supplied should give same performance results or better results with respect to technical evaluation results. **7.4** Nothing in GCC Clause **7** shall in any way release the Supplier from any warranty/service or other obligations under this Contract. **7.6** For the Components to be supplied and other Software the following will apply: The Supplier shall provide complete and legal documentation of hardware, all sub-systems, operating systems and the other software. TheSupplier shall also provide licensed software for all software products, whether developed by it or acquired from others. The supplier shall also indemnify the purchaser against any levies/ penalties on account of any default in this regard. **7.7** Acceptance Certificates:

	7.7.1 On successful completion of receipt of deliverables, installation, integration and post-delivery inspection reports, and after the purchaser is satisfied with the functioning of the Goods, the acceptance certificate signed by the supplier and the representativeof the purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioningof the Components.
8. Delivery and Documents	**8.1** Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in the Notification of Award. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
9. Incidental Services	**9.1** The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC: **9.1.1** Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods; **9.1.2** Maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty/service obligations under this Contract; **9.2** Prices charged by the Supplier for incidental services shall be included in the Contract Price for the Goods.

10. Warranty/ Service/Maintenance	**10.1** The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants thatall Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Purchaser's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. **10.2** This **Service/Maintenance contract period shall remain valid for 12 months** from the date of successful commissioning of the Goods. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the Contract. If for reasons attributable to the supplier, these guarantees are not attained in wholeor in part, the Supplier shall at its discretion either: **10.2.1** Make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests.; OR **10.2.2** Pay liquidated damages to the Purchaser with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be as specified in **SCC**. **10.3** The Purchaser shall promptly notify the Supplier through Call Centre or Email of any claims arising under this warranty. **10.4** Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof, free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. In the event of anycorrection of defects or replacement of defective material during the Warranty period, the Warranty for the corrected or replaced material shall be extended till the date of completion of warranty obligation under the Contract. **10.5** Service Level Agreement (SLA) For the purpose of the SLA, downtime shall be defined as the time for which the components, services running on the component are not available to the users in part or full due to repairs/problems. Penalty for downtime shall be counted from the time beyond the

	prescribed time for which the problem remains unresolved, after being reported to the supplier through the Call Centre or e-mail. The bidder shall provide a Call Centre number and a specific e-mail id for complaint redressal. **10.5.1** Late Execution/delivery: As detailed in GCC clause **16** and **17** **10.5.2** Maintenance and Service **Time to resolve problem** — **Penalty** Upto 48 hrs from time of logging complaint — None For every additional 72 hrs or part thereof — Rs 500 The penalty amount shall be recovered from the payment due to the supplier and the performance Bank Guarantee. **SLA Exclusions** 1. Any planned downtime that has been approved by the purchaser. 2. Downtime due to issues outside the scope of the supplier. **10.6** If any Component gives continuous trouble, (five times in a month) during the Warranty/Service period, the Supplier shall replace the Component without any additional cost to the Purchaser. **10.7** Warranty, as specified in GCC Clause 10.2, shall be "onsite" (onsite means the institute where are components have been installed).
11. Payment	**11.1** The method and conditions of payment to be made to the Supplier under this Contract shall be specified in the SCC. **11.2** The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, theGoods delivered and the Services performed, and by documents, submitted pursuant to GCC Clause 7.7, Clause 9 and upon fulfillment ofother obligations stipulated in the contract. **11.3** Payments shall be made promptly by the Purchaser but in no case later than sixty (60) days after submission of the invoice or claim by the Supplier, subject to fulfillment of obligations stipulated to the contract. **11.4** Payment shall be made in Indian Rupees. **11.5** The Bidder should quote the price for the requirements given in Section V. In case of requirement of additional/ lesser number of

	components, then the payment will be made based on the actual number of components supplied and installed in each BDA Location as certified by the concerned Authority.
12. Prices	**12.1** Prices payable to the supplier as stated in the contract shall be firm during the performance of the contract.
13. Change Orders	**13.1** The Purchaser may, at any time, order the Supplier through notice in accordance with **GCC Clause 26,** to make changes within the general scope of the Contract in any one or more of the following: **13.1.1** the place of delivery; and **13.1.2** the Related Services to be provided by the Supplier. **13.2** If any such change causes an increase in the time required for the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Delivery or Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within ten (10) days from the date of the Supplier's receipt of the Purchaser's change order.
14. Contract Amendments	**14.1** Subject to **GCC Clause 13**, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
15. Assignment	**15.1** The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.
16. Delays in the Supplier's Performance	**16.1** Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in the Schedule of Requirements. **16.2** If at any time during performance of the Contract, the Supplier should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties byamendment of the Contract. **16.3** Except as provided under GCC Clause **19**, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 17, unless an extension of time is agreed upon pursuant to GCC Clause

	16.2 without the application of liquidated damages.
17. Liquidated Damages	**17.1** Subject to GCC Clause **19**, if the Supplier fails to deliver any or all of the Goods or to perform the services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to 0.5% of the contract price of the delayed Goods for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of 5% of the Contract Price. Once the maximum is reached, the Purchaser may consider terminationof the Contract pursuant to GCC Clause **18.**
18. Termination forDefault	**18.1** The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminatethe Contract in whole or part: **18.1.1** If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause **16**; or **18.1.2** If the Supplier fails to perform any other obligation(s) under the Contract. **18.1.3** If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract. For the purpose of this Clause **corrupt practices** or **fraudulent practices** are defined as per **ITB Clause 32.1.** **18.2** In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause **18.1**, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.
19. Force Majeure	**19.1** Notwithstanding the provisions of GCC Clauses **16, 17, 18,** the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. **19.2** For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual

	capacity, wars or revolutions, fires and floods. **19.3** If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
20. Termination forInsolvency	**20.1** The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affectany right of action or remedy which has accrued or will accrue thereafter to the Purchaser.
21. Termination for Convenience	**21.1** The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective. **21.2** The Goods that are complete and ready for shipment within 10 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect: **21.2.1** To have any portion completed and delivered at the Contract terms and prices; and/or **21.2.2** To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

2. Settlement of Disputes	**22.1** The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract. **22.2** If, after thirty (10) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. **22.2.1** Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. **22.2.2** Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the SCC. **22.3** Notwithstanding any reference to arbitration herein, **22.3.1** The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and **22.3.2** The Purchaser shall pay the Supplier any monies due the Supplier.
23. Limitation ofLiability	**23.1** Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to GCC Clause **5**, **23.2** The aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing the defective Goods.
24. Governing Language	**24.1** The contract shall be written in English language. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.
25. Applicable Law	**25.1** The Contract shall be interpreted in accordance with the laws of the Union of India.
26. Notices	**26.1** Any notice given by one party to the other pursuant to this Contract shall be sent to other party in writing (through email and registered post) **26.2** A notice shall be effective when delivered or on the notice's effective date, whichever is later.

27. Taxes and Duties	**27.1** Suppliers shall be entirely responsible for all taxes, duties, license fees, octopi, road permits, etc., incurred until delivery of the contracted Goodsto the Purchaser.
28. Scope of Supply	**28.1** The Goods to be supplied shall be as specified in the Schedule of Requirements **(Section V)**. **28.2** All software, free or otherwise, shall be installed, registered in the name of the Purchaser and updated prior to dispatch of Goods.

Section IV: Special Conditions of Contract (SCC)

Item No.	Topic
1.	Definitions (GCC Clause 1)
2.	Inspection and Tests (GCC Clause 7)
3.	Delivery and Documents (GCC Clause 8)
4.	Incidental Services (GCC Clause 9)
5.	Payment (GCC Clause 11)
6.	Settlement of Disputes (GCC Clause 22)
7.	Notices (GCC Clause 26)
8.	Progress of Supply
9.	Right to use defective equipment
10.	Supplier Integrity
11.	Supplier's Obligations
12.	Patent Rights
13.	Site Preparation and Installation
14.	Hardware Installation
15.	Hardware Maintenance
16.	Training
17.	Technical Documentation

Special Conditions of Contract (SCC)

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions is indicated in parentheses.

1. Definitions (GCC Clause 1)	• The **Purchaser** is: **The Commissioner, Bangalore Development Authority, Government of Karnataka, Bangalore, Karnataka State** • The **Supplier** is: The successful Bidder to whom the purchase order is issued.
2. Inspection andTests (GCC Clause 7)	Inspection and tests prior to shipment of Goods and at final acceptance areas follows: a) Supplier shall ensure that the Goods are as per bid specifications. b) The Purchaser if needed will nominate third party agencies who will conduct independent inspection for specification conformity at the manufacturer's plant or at the Go down of the Manufacturer located in India for 10% of the total quantity to be supplied before dispatchof goods to the consignee locations (pre-dispatch inspection). The Purchaser would bear the cost of third-party inspection. c) Complete hardware and software as specified in **Section VI** should be supplied, installed and commissioned properly by the supplier prior to the commencement of post-delivery inspection tests at consignee locations. d) A Third-party agency will conduct independent post-delivery inspection for specification conformity, for 10% of the total quantity delivered, at the consignee locations. The Purchaser would bear the cost of third-party inspection.
3. Delivery an dDocuments (GCC Clause 8)	Upon delivery of the Goods, the supplier shall notify the purchaser the full details of the shipment including contract number and date, description of goods, quantity, name of the consignee, etc. The supplier shall submit the following documents to the purchaser: (a) Three Copies of the Supplier Invoice showing contract number, goods' description, quantity, unit rate and total amount; (b) Delivery Challans showing Goods' description and quantity, duly signed by the BDA Officials.

	(c) Installation/ commissioning report indicating the quantity, description and serial number of the components, duly signed by the BDA Officials **[Section XV]** The above documents shall be received by the Purchaser for the consideration of release of payment.
4. Incidental Services (GCC Clause 9)	The following services shall be rendered and the cost shall be included in the contract price: **(a)** Detailed operation and maintenance manuals for each item of supply at each location. **(b)** Maintenance and repair of the equipment at each location during the warranty period including supply of all spares. This shall not relieve the supplier of any warranty obligations under this contract.
5. Payment (GCC Clause 11)	**(a)** 100% payment of the supplied goods shall be made after successful commissioning and post delivery inspection of Goods by the respective BDA Officials. **(b)** No advance payment is admissible.
6. Settlement of Disputes (GCC Clause 22)	The dispute settlement mechanism to be applied pursuant to GCC Clause **22.2** shall be as follows:

	(a) In case of Dispute or difference arising between the Purchaser and supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996 by a SoleArbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority namely the Indian Council of Arbitration/ President of the Institution of Engineers (India)/ The International Centre for Alternative Dispute Resolution (India). A certified copy of the appointment Order shall be supplied to each of the Parties. **(b)** Arbitration proceedings shall be held at Bangalore, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English. **(c)** The decision of the Arbitrator shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the Arbitrator. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings shall be borne by each party itself.
7. Notices (GCC Clause 26)	For the purpose of all notices, the following shall be the address of the Purchaser and Supplier. **a)** Purchaser: **The Head of EDP Cell** Bangalore Development Authority, Telephone: +91 9483166622 E-mail: _____ **b)** Supplier: (To be filled in at the time of Contract signature) ....

8. Progress of Supply	Supplier shall regularly intimate progress of supply and other activities relevant to the contract, in writing, to the Purchaser as under: **(a)** Quantity offered for inspection and date; **(b)** Quantity accepted/rejected by inspecting agency and date; **(c)** Quantity dispatched/delivered to consignees and date; **(d)** Quantity where rectification/repair/replacement is made on receiptof any communication from consignee/ Purchaser with date; **(e)** Date of completion of entire Contract including incidental services. **(f)** Date of receipts of payments under the Contract.
9. Right to use Defective Goods	If after delivery, installation and acceptance; and within the warranty period, the operation or use of the Goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such Goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.
10. Supplier Integrity	The supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state-of-the-art methods and economic principles and exercising all means available to achieve the performance specified in the Contract.
11. Supplier's Obligations	11.1 The Supplier is obliged to work closely with the Purchaser's staff, act within its own authority and abide by directives issued by the Purchaser and implementation activities. 11.2 The Supplier will abide by the job safety measures prevalent in India and will free the Purchaser from all demands or responsibilities arising from accidents or loss of life the cause of which is the Supplier's negligence. The Supplier will pay all indemnities arising from such incidents and will not hold the Purchaser responsible or obligated. 11.3 The Supplier is responsible for managing the activities of its personnel and will hold itself responsible for any misdemeanors. 11.4 The Supplier will treat as confidential all data and information about the Purchaser, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Purchaser.

12. Patent Rights	In the event of any claim asserted by a third party of infringement of copyright, patent, trademark or industrial design rights arising from the useof the Goods or any part thereof in the Purchaser's country, the supplier shall act expeditiously to extinguish such claim. If the supplier fails to comply and the Purchaser is required to pay compensation to a third partyresulting from such infringement, the supplier shall be responsible for the compensation including all expenses, court costs and lawyer fees. The Purchaser will give notice to the supplier of such claim, if it is made, withoutdelay.
13. Site Preparation and Installation	The Purchaser will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection before the installation of the hardware.
14. Hardware Installation	The Supplier is responsible for all unpacking, assemblies, wiring, installations, cabling between hardware units and connecting to power supplies. The Supplier will test all hardware operations and accomplish all adjustments necessary for successful and continuous operation of the components at all installation sites and ensure that all components are in working condition.
15. Hardware Maintenance	The Supplier will accomplish preventive and maintenance activities to ensure that all components operate without any defects.
16. Training	For each hardware and software component installed, the Supplier is required to train the designated Purchaser's technical and end-user personnel to enable them to effectively operate the total system. The supplier shall provide training regarding use of Goods to all personnel specified by the purchaser and as per the training schedule specified by thePurchaser.
17. Technical Documen -tation	The Technical Documentation involving detailed instructions for operation and maintenance is to be delivered with or uploaded into every unit of Goods supplied. The language of the documentation should be English.

Section V: Schedule of Requirements

Supply, Installation, Commissioning and Warranty/Service/ Maintenance ofComponents.

Sl. No.	Components	Qty	Technical Specifications	DeliverySchedule	EMD in Rupees
1	For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System	____	As per Annexure-A	Supply, Installation and Commissioning of Goods, at delivery locations shall be completed in 15 days from the date of signing the contract.	_____

- The Bidder shall quote the price for the requirements specified in this section. In case of a requirement for an additional/ lesser number of components, the payment will be made based on the actual number of components installed in each BDA Location as certified by the BDA Officials.
- Price quoted for each component should be valid for a period of 06 Months from the date of issue of the first work order.

Section VI: Technical Specifications

Annexure. A

1. 98" Interactive Display		
S No	**Parameter**	**Specifications**
1	Display Panel Size	**98 Inches or higher**
2	Light Source	DLED backlight
3	Resolution	3840 × 2160 (4K UHD)
4	Refresh Rate	60Hz
5	Aspect Ratio	16:9 or better
6	Display Colour	1.07 Billion colors (10-bit) or higher
7	Surface	4mm Anti-glare tempered glass
8	Brightness	Upto 450 cd/m² or better
9	Haze	25%
10	Contrast Ratio	1200:1 or better
11	Viewing Angle	178° (H/V)
12	Backlight Life	≥ 50,000 hours or better
13	Touch Technology	IR Touch
14	Touch Points	40 touch points on Android & Windows or better
15	Touch Response	≤ 5 ms or less
16	Touch Accuracy	± 2 mm or less
17	CPU	Octa-Core A55 or better
18	GPU	Quad-Core MaliG52 or better
19	RAM + ROM	8GB RAM + 128GB Storage or better
20	Operating System	Android 14.0
21	Wi-Fi	802.11 a/b/g/n/ac (2.4GHz/5GHz)
22	Bluetooth	5.0 or latest
23	Speakers	2 × 20 W or better
24	Interfaces	5× USB 3.0/USB 2.0, 1× Type-C, 1x TF Card Slot, 3x HDMI IN (1 ARC), 1x HDMI OUT, 1x Touch USB, 1x RS232, 1x Line Out, 1x Coax, 1x RJ45 IN, 1x RJ45 OUT, 1x 3.5mm Jack, 1x VGA IN, 1x VGA Audio IN, 1x DP IN
25	Built in VC Software	The solution should support up to 100 participants in an online session, allow transmission of up to 4 camera feeds simultaneously, and provide 4K video, chat, data collaboration, and whiteboard features. It should also support local recording of sessions, have valid Web Security / Vulnerability & Penetration Testing Certificates, and the Interactive Display with VC software must be from the same OEM
26	Additional Features	The system should include a scheduling option with VC link sharing, support multiple cameras (minimum 4) with voice-activated switching layout, and offer advanced bandwidth optimization. It must support webinars with Q&A via chat along with YouTube live integration, and provide a VC client for smartphones & iPads with secure video/data encryption.

27	Whiteboard Features	Multi-touch interactive whiteboard (upto 20 points), handwriting-to-text, AI shape recognition, math/science tools, sticky notes, text editing, real-time collaboration, export to PDF, YouTube & Google integration, browser panel, 3D model viewer, screen capture
28	Accessories	Power Cord ×1, Stylus Pen ×2, Wall Mount Kit ×1, Remote Control ×1, User Manual ×1
29	Certifications	**BIS, CE, FCC & RoHS**

2. Ultra-thin Retractable Screen - Touch		
S No	**Parameter**	**Specification**
1	Model	Touch
2	Display Size	15.6" or better
3	Front Display Resolution	1920 × 1080 (Full HD) or better
4	Aspect Ratio	16:09
5	Touch Screen	10-point capacitive touch
6	Touch Sensitivity	≤ 2
7	Touch Response Time	≤ 3 ms
8	Panel Material	Ultra-thin 3mm anodized aluminum, width 70mm
9	Appearance/Color	Black or Silver anodized finish
10	Panel Buttons	Raise, Lower, Stop, Forward, Backward
11	Lifting Mechanism	Linear guides + chain drive, AC geared motor driven
12	Screen Tilt	Automatic 15° tilt after lifting
13	Lift Control Modes	RF remote control (≤30m), Manual Control, RS232/RS485
14	Video Input	HDMI × 2
15	USB Port	Retractable USB-A on panel for file reading/local browsing
16	Touch Input	USB-B ×1 (Touch data input to PC)
17	Control Interfaces	RJ45 ×2 (RS-485/RS-232 protocols supported)
18	Power Supply	External 12VDC input
19	Safety Functions	Anti-pinch and Anti-obstacle detection
20	Brightness	300 cd/m² or better
21	Contrast Ratio	600:1 or better
22	Visual Angle	45°/45°/20°/40° (typical)
23	Max Power Consumption	60W
24	Operating Temperature	–10°C to +45°C, RH ≤80%
25	Installation Method	Embedded
26	Product Dimensions (WxDxH)	422×70×553 mm

3. 30x Optical Zoom Camera		
S No	**Parameter**	**Specifications**

1	Sensor	The camera sensor should be 1/1.55”, CMOS, Total pixel : 50MP
2	White Balance	The camera should have an Option of Auto or Manual White Balance.
3	Scanning Mode	Progressive
4	Back Light Compensation	The camera should have a selectable Back-light compensation
5	Noise Reduction	3D or better
6	S/N ratio	The camera should have a S/N Ratio of ≥ 55dB
7	Zoom	The camera should have a 30x optical zoom and 16x digital zoom or better
8	AI Feature	The camera should have Presenter Tracking
9	Interface	The camera should have a standard Video Output and should support HDMI/DVI and 3G-SDI Ports so that Camera can be integrated with standard End Points. Apart from that , It should have native USB 3.0 support along with HDMI/DVI support so that it can also be connected with Software based VC Solution.
10	RJ-45	It should have atleast 1 RJ-45 Port for IP Camera functions.
11	Signal Support	The camera should support 1080p@60fps
12	Control Port	The camera should have an RS 232 in and out port for Communication
13	Presets	The camera should have at least 255 Position Presets
14	Field Of View	The camera should have 59° HFoV or better field of view
15	Pan Range	The camera should have a Pan Rotation Angle of -170 degrees to +170 Degrees or better
16	Tilt Range	The camera should have a Tilt Rotation Angle of -30 degrees to + 90 degrees or better
17	Accessory	The camera should be supplied with IR remote control as an included accessory.
18	Certifications	It should have BIS,CE,FCC,RoHS
19	OEM Factory	OEM should have Manufacturing Unit/ Factory in India and factory should be registered under Factory Registration act of India.

4. 12 Channel Pro Audio DSP		
S No	**Parameter**	**Specifications**
1	Type	Professional digital signal processor (DSP) supporting a minimum of 12 audio input processing channels.
2	Mic Inputs	It Should have 8 or more Microphones input interface with phoenix connector.
3	Line inputs Type-1	It Should have 2 Line input interfaces, usually for the local audio source, i.e., DVD, laptop, etc. phoenix connector.
4	Line Inputs Type-2	It Should have 2 Line input interfaces, usually for AEC reference signal input, phoenix connector.
5	Line Outputs Type-1	It Should have 2 Line output interfaces, usually for the external recording device, phoenix connector.

6	Line Outputs Type-2	It Should have 2 Line output interfaces, usually for AEC signal output, phoenix connector.
7	Line Outputs Type-3	It Should have 2 Line output interfaces, usually for external amplifier or active loudspeaker for remote and local audio playback, phoenix connector.
8	Other Ports	It should have at least one Wireless microphone input, 3.5mm audio connector.monitor headphone interface, 3.5mm connector.
9	Control Port	It should have 1xRS232 for connected to the control terminal, phoenix connector
10	ETHERNET	It should have at least one Ethernet port for Configuration/control interface, RJ45 connector.
11	USB/Stereo 3.5mm Interface for Soft calls	It should have at least one USB2.0/Stereo 3.5mm type A interface, supports bidirectional audio data transmission, can be more convenient to integrate into the OPS or PC as a sound card application
12	Software	It should support software to achieve special features like Acoustic Echo Cancellation configuration, NLP(Nonlinear Processing) Setting, Noise Reduction Setting, AGC(Automatic Gain Control) Setting, Dereverberation Setting, High-Pass Filter Setting, Low-Pass Filter Setting, Parameter Equalizer Setting, Leveler Setting, Auto Mixer Setting, Level Control Setting, Matrix Mixer Setting
13	Ceiling Microphone	Each microphone should have Pick up radius: 4.5m Max It should be supplied with 4 ceiling microphones right from day 1
14	Certifications	CE,FCC and RoHS

5. Wireless Microphone System		
S No	**Parameter**	**Specifications**
	Receiver	
1	Wireless Microphone System	It should be supplied with 1 Wireless Handheld and 1 headband microphones
2	Out Put	The receiver should have 1 number mixed Output
3	Frequency Band	The Microphones & Receiver should work on UHF frequency band.
4	Frequency Response	It should have a frequency response of 40Hz to 17000 Hz or better.
5	Antennas	It should have as 2x Antennas
6	Interface	It should have 1x output port as 6.3mm phono type.
7	Mount	It should have 1 Rack unit hight with ability to mount in rack.
8	Power	It should be supplied with 12 VDC power adapter.
5.1. Hand Held Transmitter		
9	RF Output Power	10mW (Max)

10	Carrier Frequency Range	600-699MHZ
11	Modulation Mode	FM
12	Microphone Element	Dynamic, Cardioid
13	Frequency Response	50-15,000HZ
14	Current Consumption	< 150m
15	Controls	POWER ON/OFF switch,
5.2. Body Pack Transmitter		
16	RF Output Power	10mW (Max)
17	Carrier Frequency Range	600-699MHZ
18	Modulation Mode	FM
19	Microphone Element	Condenser Mic
20	Frequency Response	50-15,000HZ
21	Current Consumption	< 150m
22	Controls	POWER ON/OFF switch, Volume control

6. Wall Mount Speakers		
S No	**Parameter**	**Specifications**
1	Enclosure Material	The system should be made of ABS Plastic
2	Woofer type	The system should be have polypropylene cone woofer
3	Woofer size	The system should be have woofer size of 5.25" or higher
4	Tweeter type	The system should be have Titanium dome type Tweeter
5	Tweeter size	The system should be have Tweeter size of 1" or higher
6	Frequency response	It should be frequency bandwidth 90HZ – 20 kHz
7	Impedance	It should have impedance of 8 ohms or higher
8	SPL (Sound Pressure Level)	It should have SPL of 90dB or higher
9	Power (RMS)	It should have 50 watts or higher Power (RMS)
10	Connectors	It should have 1 (one) pair metal binding terminal type connectors
11	Type of Mounting	It should be wall-mounting or higher
12	Dual axis Mounting	It can be mounted vertically or horizontally in both axis

7. Audio Amplifier		
S No	**Parameter**	**Specifications**
1	Gain Control	The system should have the facility to control the gain of microphone.

2	Indicator	The system should have LED indicator for status.
3	Frequency Response	The Frequency response should be 20Hz – 20000 Hz.
4	Amplifier Type	The system should be Class-D type digital amplifier with with Bass, treble Equalizer.
5	Channel	It should have 2 channel stereo output
6	Power	The Amplifier should have 200 Watts at 8 Ohms
7	Channel	The Amplifier should be inbuilt with 2 channel from day 1.
8	Line Input	It should have Line Inputs as 1 x 2RCA
9	Line Output	It should have Line Outputs as 1 x 2RCA
10	Mic Input	It should have 2x phoenix Microphone Inputs with separate gain controller
11	Unbalanced Input	It should have 1 Unbalanced Microphone 6.5mm Phono Input with gain controller
12	RS232 port	Amplifier should have 1 X RS232 port for controlling
13	Form Factor	The system should be standard 19 inches Rack Mountable or better.
14	Certification	CE, FCC and RoHS Certification
Wired Digital Conference System – Tender Specifications		
A) Conference System Controller – Technical Specifications		
S No	**Parameter**	**Specification**
1	System Architecture	Full-digital audio transmission using digital ring-network technology
2	Supported Units	Expandable up to 5200 discussion units (with external power units)
3	Audio Sampling Rate	48 kHz
4	Frequency Response	20 Hz – 20,000 Hz
5	Signal-to-Noise Ratio	> 96 dBA
6	Total Harmonic Distortion	< 0.05%
7	Crosstalk	> 85 dB
8	Dynamic Range	> 94 dB
9	Discussion Modes	OPEN, OVERRIDE (FIFO), VOICE (auto-mic), APPLY (request-to-speak)
10	Max Active Mics	Active units at the same time will be 2 Chairman and 6 Delegates
11	Equalizer	16-segment equalizer, AGC, AFC, Noise Gate
12	Feedback Suppression	Automatic feedback cancellation technology
13	Audio Inputs	1 × RCA, 1 × XLR
14	Audio Outputs	1 × RCA, 1 × XLR + 6 × Phoenix connectors
15	Digital Audio Ports	2 × RJ45 digital audio outputs
16	Control Ports	RS-232, RS-485, RJ45 for central control
17	Camera Control	VISCA / PELCO protocols supported for auto-tracking
18	Recording Support	USB recording supported

19	Monitoring	3.5 mm headphone monitoring
20	Ethernet Port	1 × RJ45 (PC / network control)
21	Power Supply	100 – 240V AC
22	Static Power Consumption	12W
23	Max Power Consumption	150W
24	Dimensions	483 × 260 × 43.6 mm (W × D × H)
25	Mounting	19" rack-mountable
26	Weight	Approx. 3 kg
B) Chairman / Delegate Unit – Technical Specifications		
S No	**Parameter**	**Specification**
1	Microphone Type	Cardioid condenser gooseneck microphone
2	Frequency Response	20 Hz – 20,000 Hz
3	Sensitivity	−46 dBV/Pa
4	Equivalent Noise	20 dBA SPL
5	Maximum SPL	125 dB (THD < 3%)
6	Audio Processing	AGC / AFC / ANC / Auto-mix
7	Indicator	Two-color LED (Red = Mic ON, Green = Request to speak)
8	Display	OLED 128 × 32 mm (volume, clock, mic status, timer)
9	Buttons	Mic ON/OFF; Chairman: Priority & Consent buttons
10	Built-in Speaker	Auto-mute when mic is active
11	Headphone Ports	Dual 3.5 mm jacks with adjustable volume
12	Power Consumption	≤ 2W
13	Interfaces	2 × RJ45 for loop-through
14	Cabling	CAT5 / CAT6
15	Housing Material	ABS
16	Dimensions	195 × 120 × 60 mm
17	Weight	Approx. 1.1 kg (with microphone)
18	Operating Temperature	0°C to +55°C
C) Gooseneck Microphone – Technical Specifications		
S No	**Parameter**	**Specification**
1	Directivity	Cardioid
2	Frequency Response	30 Hz – 20,000 Hz
3	Sensitivity	−46 dBV/Pa
4	Equivalent Noise	20 dBA (SPL)
5	Signal-to-Noise Ratio	≥ 96 dB
6	Type	Condenser
7	Max SPL	125 dB (1% THD)
8	Connection	Mini 6-pin connector
9	Length	485 mm
10	Weight	80 g

11	LED Ring	Dual-color LED (Red/Green)
12	Operating Temperature	0°C – 45°C
65" Interactive Display with integrated camera & MIC		
S No	**Parameter**	**Specifications**
1	Display Panel Size	65 Inches or higher
2	Light Source	DLED backlight
3	Resolution	3840 × 2160 (4K UHD)
4	Refresh Rate	60Hz
5	Aspect Ratio	16:9 or better
6	Display Colour	1.07 Billion colors (10-bit) or higher
7	Surface	4mm Anti-glare tempered glass
8	Brightness	500 +/- 50 cd/m² (typical) or better
9	Contrast Ratio	1200:1 or better
10	Viewing Angle	178° (H/V)
11	Response Time	8 ms or less
12	Backlight Life	≥ 50,000 hours or better
13	Touch Technology	IR Touch
14	Touch Points	40 touch points on Android & Windows or better
15	Touch Response	≤ 5ms or less
16	Touch Accuracy	±2mm or less
17	CPU	Octa core A55 or better
18	GPU	Quad-core MaliG52
19	RAM + ROM	8GB RAM + 128GB Storage or better
20	Operating System	Android 14.0 or better
21	Wi-Fi	IEEE 802.11 a/b/g/n/ac,2.4GHz/5GHz
22	Bluetooth	5 or latest
23	In-build camera	48 MP
24	integrated Mic	with 8 in built Mic
25	Speakers	2 × 20W or better
26	Interfaces (Front)	3 × USB 2.0/USB 3.0 (Optional), 1 × HDMI 2.0, 1 × Touch USB, 1 × USB Type-C (Data)
27	Interfaces (Onboard)	1 × USB 3.0, 1 × USB 2.0, 1 × RS232, 1 × VGA Audio In, 1 × VGA, 2 × HDMI (1 ARC), 1 × TF Card, 1 × LAN In, 1 × Line OUT, 1 × COAX, 1 × Touch Out
28	Built in VC Software	The solution should support up to 100 participants in an online session, allow transmission of up to 4 camera feeds simultaneously, and provide 4K video, chat, data collaboration, and whiteboard features. It should also support local recording of sessions, have valid Web Security / Vulnerability & Penetration Testing Certificates, and the Interactive Display with VC software must be from the same OEM

29	Additional Features	The system should include a scheduling option with VC link sharing, support multiple cameras (minimum 4) with voice-activated switching layout, and offer advanced bandwidth optimization. It must support webinars with Q&A via chat along with YouTube live integration, and provide a VC client for smartphones & iPads with secure video/data encryption. The solution must support enterprise-grade calendar and third-party application integration (Google, Office 365, Teams, Webex, Meet), ensuring seamless scheduling, cross-platform collaboration, and interoperability with existing systems.
30	OPS	i5 OPS with 8GB RAM & 256 SSD, Win IOT
31	Power Consumption	100–240V AC, 250W max, ≤0.5W standby
32	Environmental Factors	Operating Temp 0–40°C, Humidity 10–90% RH, Storage Temp –20–60°C
33	Accessories	Power Cord ×1, Stylus Pen ×2, Wall Mount Kit ×1, Remote Control ×1, User Manual ×1
34	Certifications	**CE, FCC, RoHS**

Table 1:

Sl. No	Item Description	Qty
1	Controller Hybrid	1 No.
2	Chairman Microphone	1 No.
3	Delegate Microphone	20 Nos.
4	Audio Amplifier 200W	1 No.
5	Wall Mount Speakers	2 Pairs (4 Nos.)
6	Wireless Handheld Microphone System	2 Nos.
7	12 Channel Pro Audio DSP	1 No.
8	98" Interactive Display	1 No.
9	Ultra-thin Retractable Screen 15.6" Touch	2 Nos.
10	30x Optical Zoom PTZ Camera	1 No.
11	OPS (i5, 8GB RAM, 256GB SSD, Win IoT)	2 Nos.
12	65" Interactive Display with integrated Mic & Camera	1 No.

Note: *The Purchaser reserves the right to vary the quantities specified in Table 1 as per requirements and provisions in KTPP act.*

Section VII: Qualification Criteria

(Referred to in Clause 11 of ITB)

Clause	Documents Required
a. The Bidder/OEM should be a registered company in India asper the Indian Companies Act 1956/ 2013 or Partnership firm as per Partnership Act 1932 or Proprietary Concern and is in the business for 5 years as on the date of publication of this RFP	• Certificate of incorporation/ Company registration Certificate/ partnership deed/ Proprietorship Firm • **PAN & Valid GST registration certificate** • **Annual IT returns for previous 3 years** • **Valid trade license** • CA certified Annual Reports for the last 3 years. **(Certified by CA with UDIN No.)** • **Self-declaration for GST & IT returns**
b. The Bidder/OEM should have a consolidated minimum positive Net Worth as on the last day of each of the preceding 3 financial years (financial year, 2022-23, 2023-24 and 2024-25).	• Charted Accountant Certificate specifying theNet Worth for the specified years.
c. As on date of Notification of Bid, the Bidder shall not be under any declaration of ineligibility for unsatisfactory past performance, corrupt orfraudulent practices, any other unethical business practices or blacklisted either by Government of India or State Governments or any public-sector units of State and Central Governments.	• Notarized Affidavit from the Authorized Signatory to the effect that the Bidder is not blacklisted by any of the Ministry/ Department of Government of India / State Governments or any public-sector units of State and Central Governments.
d. The Bidder/OEM should have executed minimum 2 similar projects in the last 3 financial year, 2022-23, 2023-24 and 2024-25 to any of the Karnataka State Government or Central Government departments or State/ Central Public Sector Units	• Copies of work orders/PO
f. The Bidder should have minimum average annual turnover of RS. 60 Lakhs, during last Five financial year, 2020-21, 2021-22, 2022-23, 2023-24 and 2024-25.	• Statutory Auditor Certificate clearly specifying the turnover for the specified years.
g. The bidder/OEM should have valid ISO 9001:2015, ISO 45001:2018, ISO 27001:2022, ISO 14001:2015, ISO 50001:2018 Certificate as on bid Publisheddate.	• Valid 9001:2015, ISO 45001:2018, ISO 27001:2022, ISO 14001:2015, ISO 50001:2018 Certificate copy
h. The Bidder and OEM should mandatorily satisfy all conditions mentioned in Karnataka Government Order No: FD 455 Exp-12 2020 Bengaluru Dated 25/8/2020	• Copy of declaration/certificate for the same to be uploaded

- MSME can claim relaxation as per KTPP provisions (valid MSME registration certificate to be uploaded)

	OEM ELIGIBILITY CRITERIA
1	The OEM / its wholly owned subsidiary should have a minimum of Two or more direct technical support staff and/or office in Karnataka to ensure immediate technical support. An official confirmation on the OEM's letterhead or relevant documentation -Rental agreement must be provided.
2	The OEM / its wholly owned subsidiary must be certified with valid ISO 9001:2015, ISO 45001:2018, ISO 27001:2022, ISO 14001:2015, ISO 50001:2018 Copies of the relevant certificates must be submitted as proof.
3	The OEM / its wholly owned subsidiary should have established office in India for a minimum of 15 years. A valid certificate of incorporation or equivalent document must be provided as proof.
4	The OEM must be a Make in India manufacturer with a factory located in India. Relevant proof must be submitted.
5	The buyer reserves the rights for any changes/cancellation/rejection of any part or whole bid, without assigning any reason what soever.
6	Manufacturer authorization: Wherever Authorized Distributors / Dealers are submitting the bid, Manufacturers Authorization Form (MAF)/Certificate with OEM details such as name, designation, address, e-mail Id and Phone No. required to be furnished along with the tender.
7	Data sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents. Buyers can match and verify the Data Sheet with the product specifications offered. In case of any unexplained mismatch of technical parameters, the bid is liable for rejection.
8	Dedicated/ toll free Telephone No. for service support, Escalation Matrix for Service support.
9	OEM / its wholly owned subsidiary must have been established in business for at least 15 years. Documented proof, such as appreciation letters from government bodies or government undertakings dated prior to 2011, must be submitted
10	Only OEMs with a manufacturing unit in India, possessing a valid and up-to-date factory license, certified quality processes audited and acknowledged through On-Site or Virtual Assessment, and a recognized domestic R&D facility shall be eligible. The Factory License, OEM Assessment Report (abridged), and Recognition Letter for in-house R&D issued by DSIR or any Government of India-recognized certification authority must be submitted along with the MII Declaration.
11	OEM must have a minimum average annual turnover of ₹100 Crores over the last three audited financial years, Proof must be provided through audited statements or CA-certified certificates.
12	The Video Conferencing Software must have a Web Application Security Testing Certificate, as well as a Security Test for Vulnerability Assessment and Penetration Testing Certificates from the appropriate Authorities.

13	The Interactive Displays, and video conferencing software must be sourced from a single OEM or its wholly owned subsidiary to ensure seamless integration and avoid compatibility issues.
14	The OEM / its wholly owned subsidiary should have at least 360 employees or more on its payroll in India. This is to justify that OEM / its wholly owned subsidiary has made investment in India and is serious about its business in India which will ensure long term after sales support and spare support from the OEM / its wholly owned subsidiary.
15	The Video & Audio conference Solution products like Camera, Audio & Interactive Display (if it is part of the solution) should be from the same OEM to avoid any integration Issues.

Section VIII: Bid Form

Date

To, Tender No:

The Commissioner
Bangalore Development Authority,Head Office -
BDA, Kumara Park West,
T.Chowdaiah Road, Bengaluru – 560020.

Gentlemen and/or Ladies:

Having examined the Bid Documents including the Addendum uploaded on the e-procurement portal, thereceipt of which is hereby duly acknowledged, we, the undersigned, offer

For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System

in conformity with the said Bid documents.

If our Bid is accepted, we will obtain the guarantee of a bank in a **sum equivalent to 5 percent of the Contract Price** for the due performance of the Contract, in the form prescribed by the Purchaser.

We agree to abide by this Bid for the Bid validity period specified in **Clause 14.1 of the ITB** and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

We understand that you are not bound to accept the lowest or any Bid you may receive.

We clarify/confirm that we comply with the eligibility requirements as **per ITB Clause 1** of the Bid documents.

Date:

Signature *(in the capacity of)*

Duly authorized to sign Bid for and on behalf of

Price Schedule (only for reference)

Sl. No.	Component	Unit Price (Inclusive of all Taxes)	Quantity	Total Price (Inclusive of all Taxes)
1	For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System			

1. The quoted rate must be inclusive of all taxes.
2. Price Quoted shall be valid for a period of 06 Months from the date of issue of WorkOrder.

Section IX: CONTRACT FORM

THIS AGREEMENT made the ..... day of ....., 2026 Between..... (Name of purchaser) of.....(Country of Purchaser) (Hereinafter called "the Purchaser") of the one part and..... (Name of Supplier) of..... (City and Country of Supplier) (Hereinafter called "the Supplier") of the other part:

WHEREAS the Purchaser is desirous of procuring the

"For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System"

(Hereinafter called "the Goods") and has accepted a Bid by the Supplier for the supply of those Goods and services for the sum of..... (Contract Price in Words and Figures) (Here in after called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents and all the conditions prescribed therein shall be deemed to form and be read and construed as part of this Contract/Agreement, viz.:
   (a) The Tender
   (b) document and all subsequent corrigendum's and addendums issued;
   (c) The Purchaser's Notification of Award.
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Brief particulars of the goods and services which shall be supplied/provided by the Supplier are as under:

Brief Description of Goods and Services to be supplied	**Total Price in Rupees (inclusive of all taxes)**
For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System	

Total Value:

Delivery Terms and Schedule: As prescribed in the Tender Document.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the Said

.....(For the Purchaser)

In the presence of: ……

Section X: Performance Security Bank Guarantee Form

To ..... (Name of Purchaser)

WHEREAS. ..... (Name of Supplier) hereinafter called "the Supplier" has undertaken, in pursuance of Contract No..... dated.....2026 for

"For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System"

hereinafter called "the Contract".

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of theSupplier, up to a total of..... (Amount of the Guarantee in Words and Figures) and we undertake to pay you, upon your first demand without, cavil or argument, any sum or sums within the limit of..... (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the..... Day of ..... 20.....

Signature and Seal of Guarantors

....

Date.....20....

Address: .....

Section XI:

(Please see Clause 11 of the Instructions to Bidder)

Proforma for Performance Statement for the last three years

Tender No…….

Name of the Firm: ……

Orders placed by (Full address of Purchaser)	Order No and Date	Description and Quantity of Goods ordered	Value of Order	Date of Completion of Delivery As per contract/ Actual	Remarks indicating reasons for late delivery, if any	Has the goods/ equipment been satisfactorily functioning. (Attach a Certificate from the Purchaser)
1	2	3	4	5	6	7

Signature and Seal of the Bidder: ……

(Scan and Upload)

Section XIII: Service Support Form

Service Center Sl. No.	Name of the Service Centre with address and telephone number

Signature of the Authorized Person

……

(Scan and Upload Document)

Section XIV: Bidder Information Form

Note 1. The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.

Date: [insert date of Bid Submission] Tender No.:

Page____of_____pages
Bidder's Legal Name [insert Bidder's legal name]
Bidder's actual or intended Country of Registration: [insert actual or intended Country of Registration]
Bidder's Year of Registration: [insert Bidder's year of registration]
Bidder's Legal Address in Country of Registration: [insert Bidder's legal address in country of registration]
Bidder's Authorized Representative Information
Name: [insert Authorized Representative's name]
Address: [insert Authorized Representative's Address]
Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers]
Email Address: [insert Authorized Representative's email address]
Attached are copies of original documents of:
Articles of Incorporation or Registration of firm named in serial no. 1, above, in accordance with **Section VII**: Qualification Criteria.
In case of government owned entity from the Purchaser's country, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with **Section VII**: Qualification Criteria.

Details of EMD paid by the Bidder participating in these Bid.

Table -3

Sl No	Particulars	EMD Amount
1	For Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System.	

Signature of the Authorized Person

(Scan and Upload Document)

……
…….

Section XV: Installation and Acceptance Report format

Name of the BDA Division: _____

Address:_____

Details of items supplied & installed:

Sl. No.	Item	Installation Date	Serial Number/s	Installation Status	
				Working	Not Working
1.					
2.					
3.					

The proper working of the all the components has been tested and are in working condition.

Signature of the Principal/Section Head Signature of Supplier(Rubber stamp seal)

Section XVI: Consignee Locations

Annexure 1: Tentative List of Components to be supplied to BDA

Sl. No	Name of the BDA Division	Location
1	Supply, Installation, Testing, Commissioning and Comprehensive Maintenance of Video and Audio Conference Meeting Hall System	BDA Head Office Board room

Section XIX: Format for Technical Compliance

1. 98" Interactive Display			**Make & Model Offered by Bidder**	**Compliance Yes/No**
S No	**Parameter**	**Specifications**		
1	Display Panel Size	**98 Inches or higher**		
2	Light Source	DLED backlight		
3	Resolution	3840 × 2160 (4K UHD)		
4	Refresh Rate	60Hz		
5	Aspect Ratio	16:9 or better		
6	Display Colour	1.07 Billion colors (10-bit) or higher		
7	Surface	4mm Anti-glare tempered glass		
8	Brightness	Upto 450 cd/m² or better		
9	Haze	25%		
10	Contrast Ratio	1200:1 or better		
11	Viewing Angle	178° (H/V)		
12	Backlight Life	≥ 50,000 hours or better		
13	Touch Technology	IR Touch		
14	Touch Points	40 touch points on Android & Windows or better		
15	Touch Response	≤ 5 ms or less		
16	Touch Accuracy	± 2 mm or less		
17	CPU	Octa-Core A55 or better		
18	GPU	Quad-Core MaliG52 or better		
19	RAM + ROM	8GB RAM + 128GB Storage or better		
20	Operating System	Android 14.0		
21	Wi-Fi	802.11 a/b/g/n/ac (2.4GHz/5GHz)		
22	Bluetooth	5.0 or latest		
23	Speakers	2 × 20 W or better		
24	Interfaces	5× USB 3.0/USB 2.0, 1× Type-C, 1x TF Card Slot, 3x HDMI IN (1 ARC), 1x HDMI OUT, 1x Touch USB, 1x RS232, 1x Line Out, 1x Coax, 1x RJ45 IN, 1x RJ45 OUT, 1x 3.5mm Jack, 1x VGA IN, 1x VGA Audio IN, 1x DP IN		

25	Built in VC Software	The solution should support up to 100 participants in an online session, allow transmission of up to 4 camera feeds simultaneously, and provide 4K video, chat, data collaboration, and whiteboard features. It should also support local recording of sessions, have valid Web Security / Vulnerability & Penetration Testing Certificates, and the Interactive Display with VC software must be from the same OEM		
26	Additional Features	The system should include a scheduling option with VC link sharing, support multiple cameras (minimum 4) with voice-activated switching layout, and offer advanced bandwidth optimization. It must support webinars with Q&A via chat along with YouTube live integration, and provide a VC client for smartphones & iPads with secure video/data encryption.		
27	Whiteboard Features	Multi-touch interactive whiteboard (upto 20 points), handwriting-to-text, AI shape recognition, math/science tools, sticky notes, text editing, real-time collaboration, export to PDF, YouTube & Google integration, browser panel, 3D model viewer, screen capture		
28	Accessories	Power Cord ×1, Stylus Pen ×2, Wall Mount Kit ×1, Remote Control ×1, User Manual ×1		
29	Certifications	**BIS, CE, FCC & RoHS**		
2. Ultra-thin Retractable Screen - Touch				
S No	**Parameter**	**Specification**		
1	Model	Touch		
2	Display Size	15.6" or better		
3	Front Display Resolution	1920 × 1080 (Full HD) or better		
4	Aspect Ratio	16:09		
5	Touch Screen	10-point capacitive touch		
6	Touch Sensitivity	≤ 2		

7	Touch Response Time	≤ 3 ms		
8	Panel Material	Ultra-thin 3mm anodized aluminum, width 70mm		
9	Appearance/Color	Black or Silver anodized finish		
10	Panel Buttons	Raise, Lower, Stop, Forward, Backward		
11	Lifting Mechanism	Linear guides + chain drive, AC geared motor driven		
12	Screen Tilt	Automatic 15° tilt after lifting		
13	Lift Control Modes	RF remote control (≤30m), Manual Control, RS232/RS485		
14	Video Input	HDMI × 2		
15	USB Port	Retractable USB-A on panel for file reading/local browsing		
16	Touch Input	USB-B ×1 (Touch data input to PC)		
17	Control Interfaces	RJ45 ×2 (RS-485/RS-232 protocols supported)		
18	Power Supply	External 12VDC input		
19	Safety Functions	Anti-pinch and Anti-obstacle detection		
20	Brightness	300 cd/m² or better		
21	Contrast Ratio	600:1 or better		
22	Visual Angle	45°/45°/20°/40° (typical)		
23	Max Power Consumption	60W		
24	Operating Temperature	–10°C to +45°C, RH ≤80%		
25	Installation Method	Embedded		
26	Product Dimensions (WxDxH)	422×70×553 mm		
3. 30x Optical Zoom Camera				
S No	**Parameter**	**Specifications**		
1	Sensor	The camera sensor should be 1/1.55”, CMOS， Total pixel : 50MP		
2	White Balance	The camera should have an Option of Auto or Manual White Balance.		
3	Scanning Mode	Progressive		
4	Back Light Compensation	The camera should have a selectable Back-light compensation		
5	Noise Reduction	3D or better		
6	S/N ratio	The camera should have a S/N Ratio of ≥ 55dB		

7	Zoom	The camera should have a 30x optical zoom and 16x digital zoom or better		
8	AI Feature	The camera should have Presenter Tracking		
9	Interface	The camera should have a standard Video Output and should support HDMI/DVI and 3G-SDI Ports so that Camera can be integrated with standard End Points. Apart from that , It should have native USB 3.0 support along with HDMI/DVI support so that it can also be connected with Software based VC Solution.		
10	RJ-45	It should have atleast 1 RJ-45 Port for IP Camera functions.		
11	Signal Support	The camera should support 1080p@60fps		
12	Control Port	The camera should have an RS 232 in and out port for Communication		
13	Presets	The camera should have at least 255 Position Presets		
14	Field Of View	The camera should have 59° HFoV or better field of view		
15	Pan Range	The camera should have a Pan Rotation Angle of -170 degrees to +170 Degrees or better		
16	Tilt Range	The camera should have a Tilt Rotation Angle of -30 degrees to + 90 degrees or better		
17	Accessory	The camera should be supplied with IR remote control as an included accessory.		
18	Certifications	It should have BIS,CE,FCC,RoHS		
19	OEM Factory	OEM should have Manufacturing Unit/ Factory in India and factory should be registered under Factory Registration act of India.		
4. 12 Channel Pro Audio DSP				
S No	**Parameter**	**Specifications**		
1	Type	Professional digital signal processor (DSP) supporting a minimum of 12 audio input processing channels.		
2	Mic Inputs	It Should have 8 or more Microphones input interface with phoenix connector.		

3	Line inputs Type-1	It Should have 2 Line input interfaces, usually for the local audio source, i.e., DVD, laptop, etc. phoenix connector.		
4	Line Inputs Type-2	It Should have 2 Line input interfaces, usually for AEC reference signal input, phoenix connector.		
5	Line Outputs Type-1	It Should have 2 Line output interfaces, usually for the external recording device, phoenix connector.		
6	Line Outputs Type-2	It Should have 2 Line output interfaces, usually for AEC signal output, phoenix connector.		
7	Line Outputs Type-3	It Should have 2 Line output interfaces, usually for external amplifier or active loudspeaker for remote and local audio playback, phoenix connector.		
8	Other Ports	It should have at least one Wireless microphone input, 3.5mm audio connector.monitor headphone interface, 3.5mm connector.		
9	Control Port	It should have 1xRS232 for connected to the control terminal, phoenix connector		
10	ETHERNET	It should have at least one Ethernet port for Configuration/control interface, RJ45 connector.		
11	USB/Stereo 3.5mm Interface for Soft calls	It should have at least one USB2.0/Stereo 3.5mm type A interface, supports bidirectional audio data transmission, can be more convenient to integrate into the OPS or PC as a sound card application		
12	Software	It should support software to achieve special features like Acoustic Echo Cancellation configuration, NLP(Nonlinear Processing) Setting, Noise Reduction Setting, AGC(Automatic Gain Control) Setting, Dereverberation Setting, High-Pass Filter Setting, Low-Pass Filter Setting, Parameter Equalizer Setting, Leveler Setting, Auto Mixer Setting, Level Control Setting, Matrix Mixer Setting		

13	Ceiling Microphone	Each microphone should have Pick up radius: 4.5m Max It should be supplied with 4 ceiling microphones right from day 1		
14	Certifications	CE,FCC and RoHS		
5. Wireless Microphone System				
S No	**Parameter**	**Specifications**		
	Receiver			
1	Wireless Microphone System	It should be supplied with 1 Wireless Handheld and 1 headband microphones		
2	Out Put	The receiver should have 1 number mixed Output		
3	Frequency Band	The Microphones & Receiver should work on UHF frequency band.		
4	Frequency Response	It should have a frequency response of 40Hz to 17000 Hz or better.		
5	Antennas	It should have as 2x Antennas		
6	Interface	It should have 1x output port as 6.3mm phono type.		
7	Mount	It should have 1 Rack unit hight with ability to mount in rack.		
8	Power	It should be supplied with 12 VDC power adapter.		
5.1. Hand Held Transmitter				
9	RF Output Power	10mW (Max)		
10	Carrier Frequency Range	600-699MHZ		
11	Modulation Mode	FM		
12	Microphone Element	Dynamic, Cardioid		
13	Frequency Response	50-15,000HZ		
14	Current Consumption	< 150m		
15	Controls	POWER ON/OFF switch,		
5.2. Body Pack Transmitter				
16	RF Output Power	10mW (Max)		
17	Carrier Frequency Range	600-699MHZ		
18	Modulation Mode	FM		
19	Microphone Element	Condenser Mic		

20	Frequency Response	50-15,000HZ		
21	Current Consumption	< 150m		
22	Controls	POWER ON/OFF switch, Volume control		
6. Wall Mount Speakers				
S No	**Parameter**	**Specifications**		
1	Enclosure Material	The system should be made of ABS Plastic		
2	Woofer type	The system should be have polypropylene cone woofer		
3	Woofer size	The system should be have woofer size of 5.25" or higher		
4	Tweeter type	The system should be have Titanium dome type Tweeter		
5	Tweeter size	The system should be have Tweeter size of 1" or higher		
6	Frequency response	It should be frequency bandwidth 90HZ – 20 kHz		
7	Impedance	It should have impedance of 8 ohms or higher		
8	SPL (Sound Pressure Level)	It should have SPL of 90dB or higher		
9	Power (RMS)	It should have 50 watts or higher Power (RMS)		
10	Connectors	It should have 1 (one) pair metal binding terminal type connectors		
11	Type of Mounting	It should be wall-mounting or higher		
12	Dual axis Mounting	It can be mounted vertically or horizontally in both axis		
7. Audio Amplifier				
S No	**Parameter**	**Specifications**		
1	Gain Control	The system should have the facility to control the gain of microphone.		
2	Indicator	The system should have LED indicator for status.		
3	Frequency Response	The Frequency response should be 20Hz – 20000 Hz.		
4	Amplifier Type	The system should be Class-D type digital amplifier with with Bass, treble Equalizer.		
5	Channel	It should have 2 channel stereo output		

6	Power	The Amplifier should have 200 Watts at 8 Ohms		
7	Channel	The Amplifier should be inbuilt with 2 channel from day 1.		
8	Line Input	It should have Line Inputs as 1 x 2RCA		
9	Line Output	It should have Line Outputs as 1 x 2RCA		
10	Mic Input	It should have 2x phoenix Microphone Inputs with separate gain controller		
11	Unbalanced Input	It should have 1 Unbalanced Microphone 6.5mm Phono Input with gain controller		
12	RS232 port	Amplifier should have 1 X RS232 port for controlling		
13	Form Factor	The system should be standard 19 inches Rack Mountable or better.		
14	Certification	CE, FCC and RoHS Certification		
Wired Digital Conference System – Tender Specifications				
A) Conference System Controller – Technical Specifications				
S No	**Parameter**	**Specification**		
1	System Architecture	Full-digital audio transmission using digital ring-network technology		
2	Supported Units	Expandable up to 5200 discussion units (with external power units)		
3	Audio Sampling Rate	48 kHz		
4	Frequency Response	20 Hz – 20,000 Hz		
5	Signal-to-Noise Ratio	> 96 dBA		
6	Total Harmonic Distortion	< 0.05%		
7	Crosstalk	> 85 dB		
8	Dynamic Range	> 94 dB		
9	Discussion Modes	OPEN, OVERRIDE (FIFO), VOICE (auto-mic), APPLY (request-to-speak)		
10	Max Active Mics	Active units at the same time will be 2 Chairman and 6 Delegates		
11	Equalizer	16-segment equalizer, AGC, AFC, Noise Gate		
12	Feedback Suppression	Automatic feedback cancellation technology		

13	Audio Inputs	1 × RCA, 1 × XLR		
14	Audio Outputs	1 × RCA, 1 × XLR + 6 × Phoenix connectors		
15	Digital Audio Ports	2 × RJ45 digital audio outputs		
16	Control Ports	RS-232, RS-485, RJ45 for central control		
17	Camera Control	VISCA / PELCO protocols supported for auto-tracking		
18	Recording Support	USB recording supported		
19	Monitoring	3.5 mm headphone monitoring		
20	Ethernet Port	1 × RJ45 (PC / network control)		
21	Power Supply	100 – 240V AC		
22	Static Power Consumption	12W		
23	Max Power Consumption	150W		
24	Dimensions	483 × 260 × 43.6 mm (W × D × H)		
25	Mounting	19" rack-mountable		
26	Weight	Approx. 3 kg		
B) Chairman / Delegate Unit – Technical Specifications				
S No	**Parameter**	**Specification**		
1	Microphone Type	Cardioid condenser gooseneck microphone		
2	Frequency Response	20 Hz – 20,000 Hz		
3	Sensitivity	−46 dBV/Pa		
4	Equivalent Noise	20 dBA SPL		
5	Maximum SPL	125 dB (THD < 3%)		
6	Audio Processing	AGC / AFC / ANC / Auto-mix		
7	Indicator	Two-color LED (Red = Mic ON, Green = Request to speak)		
8	Display	OLED 128 × 32 mm (volume, clock, mic status, timer)		
9	Buttons	Mic ON/OFF; Chairman: Priority & Consent buttons		
10	Built-in Speaker	Auto-mute when mic is active		
11	Headphone Ports	Dual 3.5 mm jacks with adjustable volume		
12	Power Consumption	≤ 2W		
13	Interfaces	2 × RJ45 for loop-through		
14	Cabling	CAT5 / CAT6		
15	Housing Material	ABS		
16	Dimensions	195 × 120 × 60 mm		
17	Weight	Approx. 1.1 kg (with microphone)		
18	Operating Temperature	0°C to +55°C		

C) Gooseneck Microphone – Technical Specifications				
S No	**Parameter**	**Specification**		
1	Directivity	Cardioid		
2	Frequency Response	30 Hz – 20,000 Hz		
3	Sensitivity	−46 dBV/Pa		
4	Equivalent Noise	20 dBA (SPL)		
5	Signal-to-Noise Ratio	≥ 96 dB		
6	Type	Condenser		
7	Max SPL	125 dB (1% THD)		
8	Connection	Mini 6-pin connector		
9	Length	485 mm		
10	Weight	80 g		
11	LED Ring	Dual-color LED (Red/Green)		
12	Operating Temperature	0°C – 45°C		
65" Interactive Display with integrated camera & MIC				
S No	**Parameter**	**Specifications**		
1	Display Panel Size	65 Inches or higher		
2	Light Source	DLED backlight		
3	Resolution	3840 × 2160 (4K UHD)		
4	Refresh Rate	60Hz		
5	Aspect Ratio	16:9 or better		
6	Display Colour	1.07 Billion colors (10-bit) or higher		
7	Surface	4mm Anti-glare tempered glass		
8	Brightness	500 +/- 50 cd/m² (typical) or better		
9	Contrast Ratio	1200:1 or better		
10	Viewing Angle	178° (H/V)		
11	Response Time	8 ms or less		
12	Backlight Life	≥ 50,000 hours or better		
13	Touch Technology	IR Touch		
14	Touch Points	40 touch points on Android & Windows or better		
15	Touch Response	≤ 5ms or less		
16	Touch Accuracy	±2mm or less		
17	CPU	Octa core A55 or better		
18	GPU	Quad-core MaliG52		
19	RAM + ROM	8GB RAM + 128GB Storage or better		
20	Operating System	Android 14.0 or better		
21	Wi-Fi	IEEE 802.11 a/b/g/n/ac,2.4GHz/5GHz		

22	Bluetooth	5 or latest		
23	In-build camera	48 MP		
24	integrated Mic	with 8 in built Mic		
25	Speakers	2 × 20W or better		
26	Interfaces (Front)	3 × USB 2.0/USB 3.0 (Optional), 1 × HDMI 2.0, 1 × Touch USB, 1 × USB Type-C (Data)		
27	Interfaces (Onboard)	1 × USB 3.0, 1 × USB 2.0, 1 × RS232, 1 × VGA Audio In, 1 × VGA, 2 × HDMI (1 ARC), 1 × TF Card, 1 × LAN In, 1 × Line OUT, 1 × COAX, 1 × Touch Out		
28	Built in VC Software	The solution should support up to 100 participants in an online session, allow transmission of up to 4 camera feeds simultaneously, and provide 4K video, chat, data collaboration, and whiteboard features. It should also support local recording of sessions, have valid Web Security / Vulnerability & Penetration Testing Certificates, and the Interactive Display with VC software must be from the same OEM		
29	Additional Features	The system should include a scheduling option with VC link sharing, support multiple cameras (minimum 4) with voice-activated switching layout, and offer advanced bandwidth optimization. It must support webinars with Q&A via chat along with YouTube live integration, and provide a VC client for smartphones & iPads with secure video/data encryption. The solution must support enterprise-grade calendar and third-party application integration (Google, Office 365, Teams, Webex, Meet), ensuring seamless scheduling, cross-platform collaboration, and interoperability with existing systems.		
30	OPS	i5 OPS with 8GB RAM & 256 SSD, Win IOT		

31	Power Consumption	100–240V AC, 250W max, ≤0.5W standby		
32	Environmental Factors	Operating Temp 0–40°C, Humidity 10–90% RH, Storage Temp –20–60°C		
33	Accessories	Power Cord ×1, Stylus Pen ×2, Wall Mount Kit ×1, Remote Control ×1, User Manual ×1		
34	Certifications	**CE, FCC, RoHS**		